

CONDITIONS OF THE STONE INDUSTRY : A STUDY OF WORKERS IN THE STONE INDUSTRY IN AGRA (U.P.)

Sponsored by :

DEPARTMENT OF INDUSTRIES
GOVERNMENT OF UTTAR PRADESH

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CHAPTER I

STONE INDUSTRY OF AGRA (General Characteristics)

Agra is famous for Taj Mahal. It is also known for leather goods, stone craft, Durries and Zari work. In leather and stone crafts it occupies a position of pride not only within the country but outside also. Stone craft is a very old activity which flourished during the Mughal period because of the patronage of the Mughal Kings. In the early period only red stone was used for making different items. The variety of stones expanded with the availability of new ones. At present soft soap stone, gaurara stone, Paleva, Alawastar stone, Black stone and Kora stone are used for making different items. Alawastar, popularly known as Italian marble is being imported from Italy while Black stone and Kora stone are imported from Belgium and Germany respectively. Some of the real stones being used in Inlay work (Pachchikari) for decoration are also imported from Italy, Belgium and USSR while others are procured by their dealers from Jaipur, Madras and Hyderabad. The most commonly used decorative stones are : Amethyst, Turquoise, Coral, Mother of pearl, Sea shell (Conch), Onix, Lapis, Malechite, Sodium, Carnalium, Dana-e-firangi, Pauwa sail, Khattu, Hasau, Khadu, Barauda, Golden, Orange, Black, Green, Yellow, Pink and Mau.

A number of articles are made from a variety of stones. The most popular among them are : Taj Mahal model, Plates, Table Tops, Jewellery Boxes, Small Boxes for different uses, Lamps (table, stand and hanging lamps), Statues, animal figures, cigarette holders, candle stands, pen stands, photo frames, soap cases, vermilion cases, ear rings, flower pots, card boxes, ash trays, paper weights, etc.

The growth of the stone industry, in terms of increase in number of units and workers, is difficult to portray because there were no authentic records about the industry in any of the concerned offices. The officials of the Industries department, the entrepreneurs and the workers had their own estimates, seriously conflicting each other. The estimates of all of them were on a very high side. However, some estimated figures received through different sources in Agra shows that there were 200 stone workers in 1947 and 4400 in 1956. The number of registered/unregistered units in 1956 was 250. The number of workers in 1979-80 was estimated at 5000. The number of establishments registered with the District Industries Centre upto 1985-86 were 89 with a strength of 440 workers. The estimate of the officials of the DIC about the number of unregistered establishments was 600 while that of the workers 3000, during the same year. However, the team of Investigators of the present project found 361 unregistered establishments and a total of 1891 stone workers working in different types of set-up. Of them 1796 were

working either in their own family units, small household units or in karkhanas and 95 workers were working at the Radha Swami Temple at Dayal Bagh. Finding such a serious variation in estimates and the actual position the Investigators discussed the matter with some of the officials of the concerned departments. Some of them accompanied the team members in certain concentrated areas, to find out the actual position. Eventually, they also agreed that their estimates of number of workers and units were on higher side.

Organization

Most of the establishments were proprietary and only a few were under partnership. However, the partnership was limited to the members of entrepreneurs' families. The majority of the units was using mostly family labour and only marginally, if at all, hired labour. Even in the karkhana type non-household units, defined as those having majority of hired workers, unpaid family workers lookafter supervision, etc. Thus, in a way all units were run by households, even those using mainly hired labour were owned and operated on a family basis. Thus, we found nearly one-third of the total family members were working in their units; mostly as craftsmen and some in the administrative capacity. The small size families were using greater proportion of household workers in their units than the large size families. There were two cooperative societies of small

entrepreneurs. Among them stone craft cooperative society limited, established in 1954 claimed a membership of 130 small entrepreneurs while the other, Agra Marble Craftsmen Organisation established in 1983 claimed a membership of 200 small entrepreneurs. Most of the units were found to undertake jobs either from dealers or from commission agents. Thus, they earn wages for the job they undertake. The system of direct sale to retailers or consumers was very limited. Only a few larger establishments had their own show rooms in Agra. Others sell their articles to direct consumers or retailers only when these customers visit their units and express their desire to purchase.

There were two types of establishments - Household units and Karkhana type units. The household units use only family labour and if they get bulk orders they prefer to get it done by other household units, instead of getting it done in their own unit through non-household hired workers. Although some of them make various articles for direct sale yet they depend mainly on dealers and commission agents for orders. Thus, all the household units work for others, i.e., make various stone items on orders from the dealers. Such establishments follow only traditional technology by using hand operated tools and, therefore, are able to make only selected items such as Taj Mahal model, table lamps and statues, etc.

The karkhana type units with a majority of hired workers are larger establishments. They also work for others, such as wholesalers/dealers and exporters. However, they also make stone items for sale to dealers/wholesellers of other metropolitan cities, local small retailers and direct customers. Some of them also have their show-rooms in Agra. A few of them also receive orders from foreign dealers. They have adopted modern technology by using power operated machines for stone cutting, drilling, grinding and polishing. This has resulted in a significant increase in productivity. However, due to use of new technology they are able to produce only such selected articles which can be shaped by the machines, such as, boxes of different sizes and for different purposes, pendane, ash tray, agarbatti stand, flower pots and other fancy items. The capital investment in these establishments is estimated at between Rs.1.0 lakh and Rs.2.5 lakhs per unit. For starting a karkhana type unit the entrepreneur needs about Rs.50,000 and for a household unit Rs.5,000, which include fixed and working capital.

The nature of work in the stone industry is divided into two kinds of activities. The basic work is the stone craft which involves cutting of stone, shaping, engraving, netting, finishing and polishing. The other type of work is called Panchchikari or inlay work, which is more fine, artistic and time taking process. The establishments are generally carrying out only one of the two types of activities. They are making

either certain items out of a variety of stones or are doing inlay work. The workers engaged in the industry specialises in one or the other processes and, therefore, an item passes through a number of hands before it is completed.

The inlay work is done on a number of fancy items. In this process generally real stones of different varieties are studded in attractive designs. It is done with the help of only hand tools. This process requires skills of a very high order and the productivity in this process is very low. The workers engaged in this activity face a number of problems social and economic both, which will be discussed later.

The inlay work is generally done on various types of boxes, ash trays, plates, photo frames, pen stands, cigarette cases, table tops and some other costly and fancy items. These items are supplied to the inlay workers by the dealers of these goods. They also supply the decorative stones along with the specimen of the items for design choice. The workers get wages according to the number of stones studded by them.

The organisation of production has three main systems, i.e., producers, wage earners and middlemen/commission agents. In the category of producers two types of arrangements work. In the first type the entrepreneurs get the different stone items made in their units by processing their own raw materials and sell them in the local market. This system, however, works on a very limited scale. The other type of arrangement is

that they get bulk orders for certain items from the dealers. The entrepreneurs get them made by processing their own raw materials and charge the price.

In the category of wage earners are those entrepreneurs who get different stone items made in their units by processing the raw materials supplied by their customers and charge wages for the work done by them. These two types of arrangements are common among both the household and karkhana type establishments.

In the category of middlemen/commission agent are those small entrepreneurs who have their household units. Due to limited production capacity they get their work done by other similar units and earn commission, in case they get bulk order. Such units depend only on household labour and instead of engaging non-household workers prefer to get it done by other household units if the quantum of work is beyond their capacity.

In our sample of 45 establishments we found that 11 units were working for others only while 7 establishments were processing their own raw materials for sale. The size and types of the establishments are described in Table 1.1 .

Table 1.1 : Size of Establishments According to the Type of their Activities

Size : Number of Workers	Type of Activities					Total
	Work for others	Work for themselves	Work for themselves and for others	Work for themselves and get done by others	Work for themselves and get done by others	
Upto 5	6 20.69	4 13.79	13 44.83	1 3.45	5 17.24	29 64.44
6 - 10	4 36.36	1 9.09	5 45.46	-	1 9.09	11 24.45
11 - 15	-	1 50.00	1 50.00	-	-	2 4.44
16 & above	1	1 50.00	1 50.00			3 6.67
Total	11 24.45	7 15.56	20 44.44	1 2.22	6 13.33	45 100.00

There were twenty entrepreneurs working for themselves as well as for others. The six entrepreneurs were working for themselves, as well as for others and were also getting the work done by others were actually dependent on others for job orders. They process their own raw materials only during the period they don't have work orders from dealers/commission agents. Thus, most of the establishments (37) depend on dealers/commission agents/exporters of stone articles for work order.

Raw Materials

The industry uses basically three kinds of raw materials, i.e., a variety of stones used as the basic raw material for

making different items, the inlay stones for decorating some of these items and adhesives. A variety of stones are used for making different items. Among them, most popular are soft/soap stone, gaurara stone, paleva, alawastar stone, black stone and kora stone. Alawastar is being imported from Italy and, therefore, it is also called Italian marble. It is used in making Taj Mahal models, statues and some fancy items known as decoration peices. The price of this stone in the local market was between Rs.28.0 and Rs.30.0 per Kg. The kora stone is imported from West Germany. The black stone which is imported from Belgium is the costliest stone used by the industry. Its price in the local market is about Rs.100/- per Kg. Due to high cost, it is used by a small number of units for making fancy statues, Shiv-ling and some high quality fancy items. Generally, costly table tops with inlay work are made from this stone. The soft stone or soap stone popularly known as selum is used for making Taj Mahal models, figures of various animals and boxes for different purposes. It is brought to Agra from Makrana (Rajasthan) and Jhansi (UP). The prevailing price of soft stone range between Rs.4.10 and Rs.4.50 per Kg. The green selum stone, available at Rs.2.50 per Kg. is also used in making similar items. The gaurara stone is widely used for making various types of boxes, statues, Taj Mahal model, table lamps, ash trays, etc. It is the cheapest stone available at Rs.1.10 and Rs.1.50 per Kg. Some of the inlay stones or decorative stones used for inlay work or pachchikari

in the local language are imported from Italy, Belgium, West Germany and USSR. The markets of other stones are Jaipur, Madras Hyderabad and Ahmedabad.

The various kinds of raw materials are procured by the local wholesalers/dealers of these items either from importers or from the mines or dealers of important centres mentioned above.

Some of the dealers/commission agents dealing with the stone items also supply stone to the entrepreneurs for making their desired items. In most of the cases, however, the entrepreneurs have to buy the raw material for completing the job work received from their customers. The entrepreneurs had a strong feeling of exploitation from the dealers of various kinds of stones. Their major complaint was that the rates of these items used as raw material were exorbitant and they were virtually on the mercy of the dealers of these stones. There were only three main dealers of different kinds of stones in Agra. One of them had complete control over the soft stone/soap stone, the other had monopoly of the gaurara stone and the third one had control over the alawaster stone. Some of them alleged that the stone dealers were making profit of over one hundred per cent. There was also a widespread feeling of harassment by the stone dealers. Such a feeling was found more among those having small household units. They had two examples to substantiate their allegation against the stone dealers : (a) the small household units who purchase

stone in small quantity are given only small pieces of stone while the karkhana owners get large size stone pieces. The price charged from both types of buyers remain the same. The small household units were, therefore, compelled to restrict their production to small sized items. This reduces their margin of profit; and, (b) the price of the stone on the cash memo is not mentioned by the dealers. Only the quantity of the stone sold is mentioned. If the entrepreneurs demand large size pieces or that the price should be mentioned on the Cash Memos they are denied supply of the raw material.

Marketing

As indicated earlier the marketing arrangements had three systems in the industry. On a small scale the entrepreneurs were processing their own raw materials and selling their products either to the local retailers or direct to the customers (users). The majority of the entrepreneurs were getting job work from dealers/wholesellers/exporters or commission agents. They were also getting the raw materials stone and inlay stones both, and were, therefore, earning wages. In some cases the entrepreneurs securing job work were processing their own raw materials and getting the agreed price of articles from the dealers/exporters/commission agents. Thus, the entrepreneurs were, by and large, depending on job work which does not involve marketing of their products. This is why only a few of them had their show-rooms in Agra.

The industry has considerably good demand of its products in the foreign market, particularly in USA, Canada, West Germany, France, UK, Italy, Belgium, Saudi Arabia and other countries of the middle east. However, the entire export, estimated at around three-fifths of the total production, is handled by dealers/commission agents and exporters of Bombay, Delhi and Calcutta.

The role of commission agents in the industry and its trade is very important. There were commission agents between dealers and the entrepreneurs and between dealers and direct customers. These middlemen places orders of the stone items to the entrepreneurs and supply them to dealers in Agra as well as in other metropolitan cities. The middlemen between dealers and direct customers are mostly tourist guides, taxi/bus drivers. The local show-rooms dealing in various stone items pay commission to these guides and drivers for bringing tourists to their show rooms. The rate of commission of the guides was very high. It was reported that they were paid @ 30 per cent of the sale price of the articles. The drivers of tourists buses were also getting a commission of Rs.25/- and the taxi drivers Rs.5/- from the show-rooms where they bring the prospective customers of stone articles. Besides, they have the facility of getting loans and advances from the show rooms. This system enhances the retail prices to a very high level.

The local dealers depend mainly on foreign tourists visiting Agra to view the Taj Mahal. The retail trade, therefore, heavily depends on the tourists season. If the number of tourists declines considerably the stone workers and entrepreneurs owning their karkhanas are affected most. Due to decline in the demand of stone articles the entrepreneurs have to sell their items to the show-rooms at a considerably lower price. Those working for others on job work are paid lower wages. The artisans face unemployment. The respondents cited a number of examples when inflow of foreign tourists was affected such as during wars with China and Pakistan or during disturbances in the country. The stone industry had suffered a lot during such periods.

Labour Recruitment

The smaller establishments are run on the household basis whereas the middle size units engage some hired workers but depend mostly on household workers. The larger establishments known as karkhanas employ non-household workers for skilled jobs. The household workers in these karkhanas secure job work procure raw materials, supervise different process of work, get various processes done by other units, market their own products, maintain accounts, etc.

The establishments recruit workers directly. The systems are : (a) the entrepreneurs themselves search workers who are proficient in different kinds of jobs; (b) the workers also

contact the entrepreneurs and get the job in case work is available; and (c) some children are given training in stone craft in the unit during which period they are paid around Rs.100/- per month. After they are able to acquire some skills they are also engaged as workers. Thus, there is no involvement of labour contractors/agents in the industry.

The workers are paid at piece rate basis. However, some pachchikari workers and some working on stone cutting machine are employed on regular basis and are, therefore, paid monthly salary. The number of such workers, however, is very small. Since the establishments depend on job work they are not in a position to offer regular employment to their workers. This is the reason why the workers have no security of job. They face intermitant unemployment either due to seasonal variations (the work decreases considerably during rainy season) or slack business because of decline in number of foreign tourist visiting Agra. During normal periods, workers do not face serious problem in getting a job if they desire to change their employers, primarily due to decline in the number of skilled workers.

It is estimated that most of the workers earn between Rs.300.00 and Rs.650.00 per month, depending upon the nature of their work. Some seasonal variations in income are, of course reported. This is partly due to larger quantum of work done by the workers and partly due to slightly higher wages that they get during the peak season. During the periods of

unemployment, some of the workers purchase raw materials, process them and sell their products to wholesalers. However, their earnings from sale of their products remain meagre because due to slack season the dealers pay a very low price of such articles.

Objectives

In order to formulate policies and programmes for the development of stone industry so as to utilize its employment advantage, a number of issues needed examination. The issues center around the following objectives of the study:

1. To study the organization of industry including socio-economic composition of entrepreneurs owning units/ establishments, system of procurement of raw materials, organisation of work of various kind, technology, finance, marketing and exports;
2. To examine the trends and potential of growth of industry and constraints in its expansion;
3. To portray the employment system and working conditions of workers including job security, wages and benefits;
4. To estimate the magnitude and trends in employment in the industry;
5. To study the living conditions of workers including their socio-economic background, levels of household income and living, housing and amenities, access to public services, education of children and health conditions; and,
6. To suggest measures for expansion of industry and improvement in the conditions of workers.

The Sample

The present study is primarily based on the responses of 45 entrepreneurs owning different types of establishments, i.e., household units and karkhana type establishments and 180 stone workers. Their responses have been analysed for deeper study of the various aspects of the stone industry. Besides this sample, we also conducted census of workers engaged in the stone industry in Agra. It also covered some important aspects of their working and living conditions - more particularly the conditions of employment in the industry, the economic and living conditions of the household. In selecting the samples of entrepreneurs and workers, random selection method was adopted. The entrepreneurs and workers were interviewed on the basis of two different schedules. A separate schedule was prepared for conducting census of workers.

The ownership of 43 units was proprietary and 2 units were running under partnership. The partnership of the two units was confined to family members and, therefore, were also family owned. Thus, all the establishments were run as family business. Of the 45 establishments, only three were registered with the industries department through the District Industries Centre and one with the Department of Sales Tax.

The ownership of the 23 establishments was inherited by the present owners during 1935 and 1985. The remaining 22 units were established by their present owners during 1930 and 1985. Except one, all the entrepreneurs who established their

units for making stone items belong to the families whose occupation was other than stone craft. Most of such units (17) were established recently, in between 1972 and 1985. It looks surprising as the common feelings among the entrepreneurs and workers were that the industry had declined considerably and that there were very little prospects of its improvement mainly due to very low earnings. The entry of new entrepreneurs into the stone industry whose traditional family occupation was different also suggest that unlike some other crafts stone craft has not remained a monopoly of such families who have been traditionally associated with the craft.

Of the 45 establishments 11 were engaged in making Taj Mahal models while 2 other units were also making the same item along with some other items of decoration. A number of useable and other items of decoration were made in 21 establishments. These items included : Jewellery boxes, statues of different figures, lamps of various varieties, small boxes for different purposes, photoframes, paper weights, ash trays, pen stand, candle stand, flower pots, powder cases, toys, table tops and plates for decoration purposes. Nine of the selected units specialised in pachchikari (inlay) work a process of very high skill and two establishments were engaged in only preparatory and finishing work such as stone cutting, lathe work and drilling and certain other process in finishing of items made in other units.

The entrepreneurs

Even though the stone craft units in Agra are family owned, it is not necessarily the oldest member of the household who manages the establishment. About one-fifths (22.22 per cent) of the selected entrepreneurs were in the age group of upto 25 years and one-third (33.33 per cent) in the age group 25-35 years. Nearly one-fourth of the entrepreneurs (24.45 per cent) were in the age group of 36-45 years followed by 13.33 per cent in the 46-55 and 6.67 per cent in the 56 years and above age groups. Thus, a majority of the entrepreneurs (55.55 per cent) owning establishment for making different stone items were young, i.e., in the age group of upto 35 years. This is also supported by the year of establishment/inheritance of the units, e.g., 15 units were established and 10 inherited during the last decade, 1976-85.

All the entrepreneurs selected in the sample were trained in one or the other processes of the stone craft. Most of them received their training either in their own family's establishments (62.2 per cent) or in the units of some of their relations (20.0 per cent). Thus, only about 18 per cent of them got their training from other places. The period of training vary considerably. About 29 per cent of them received training for less than a year. The training period of 17.8 per cent of the entrepreneurs was in between one and two years; of 28.9 per cent between two and three years; of 17.8 per cent between three and five years and of 24.4 per cent over five years. The training period depended on the process and the extent of proficiency one desired.

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A large majority of the entrepreneurs have had atleast some education : about 41 per cent were graduates/post graduates in Arts, Science or Commerce, 7 per cent had passed Intermediate and 20 per cent were Matriculates. Nearly 29 per cent had studied upto Senior Basic and 18 per cent upto Junior Basic level. One of the entrepreneurs was literate without any formal schooling and six (13.3 per cent) were illiterate.

The entrepreneurs do not belong to any particular community. Among them were Hindus belonging to the high, backward and Scheduled Castes and Muslims. About half of the entrepreneurs in our sample belonged to the high castes and about 6.7 per cent to the backward and Scheduled Castes. Nearly 38 per cent were Muslims. One significant point to note is that all the entrepreneurs in the sample, whose units were engaged in Inlay work (pachchikari) were Muslims. This indicates the position that Inlay work, a highly skilled job, on costly decorative items is done by Muslims only. Except two who migrated from other states, all the entrepreneurs were of local origin, their families belonged to Agra town/district.

All except nine (20 per cent) entrepreneurs started their career with their present activity in the stone industry. Of those who did something else before starting the present unit five were wage/salary earners in other occupations and four were engaged in trading activity. The families of ten (22.2 per cent) of the entrepreneurs had also other sources of income besides their

stone work establishments. Most of those (7) with other source of income had non-household units. Three of them were engaged in giving training to artisans in stone craft; two each were in trading and regular employment. Of the three families of the entrepreneurs who had household units of stone work one each had also earnings through carpet weaving, zari work and training to artisans.

A look at the size of family of the entrepreneurs indicate the tendency of having large size families considering the family size norms of the present day. Nearly half of the families (48.9 per cent) had members ranging between five and seven, about 18 per cent had between 8 and 10 and about 24 per cent had 11 or more members. Thus, the average size of family was 7.69.

About 32 per cent of the total family members were working in their own establishments. Among them were children in the age group of upto 15 years, adults in between 16 - 59 years and older people in the age group of 60 years or more. Of the total population of persons in the three age groups, 4.8 per cent of children, 48.1 per cent adult and 28.6 per cent older people were working in their family's units. A smaller proportion of female children and adults (9.6 per cent) were also engaged in their units.

Capital and Earnings

The average total productive capital per establishment comes to Rs.32,924.45, in the form of fixed capital (Rs.15257.78) and working capital (Rs.17,666.67). By and large, the investment depend on : (a) the size of the establishment as indicated by the numbers of workers; (b) the type of unit, i.e., the ownership of the raw materials processed by them; and, (c) the nature of work undertaken by the units. The investment of productive capital in the form of fixed and working capital increases with the increase in the number of workers in the units. The average investment per establishment was highest in the case of those units which were working for themselves, i.e., processing their own raw materials and making certain items for sale (Rs.44,950.00). Next to them were the units in the category of 'work for themselves and for others' (Rs.39,965.00). The lowest investment was reported by the units depending on job work only (Rs.15,391.67). We find the establishments engaged in inlay work had the lowest average productive capital per unit, Rs.17,520.00 as against Rs.37,325.74 of the establishments engaged in other processes. The average fixed and working capital of the inlay units were Rs.7,020.00 and Rs.10,500.00 respectively. In comparison, the average investments of other types of units were Rs.17,611.43 and Rs.19,714.29 per unit respectively.

Among the 45 sample establishments 22 were initiated by their present entrepreneurs and 23 were inherited by their present owners. Those who inherited, spent a certain amount on fixed assets - ranging from Rs.700.00 to Rs.1,00,000.00. The average investment per establishment comes to Rs.14,000.00. Those who initiated their establishments needed an average productive capital of Rs.13,114.09 per unit, including fixed capital (Rs.9,271.82) and working capital (Rs.3,842.27). Half of them (12) managed the amount out of their own savings. Among the rest of the entrepreneurs (10), four secured loans from the Banks at an interest of 12 per cent, four got the interest free loans from their relatives while two entrepreneurs obtained loans from the money lenders on interest between 24 per cent and 30 per cent per annum.

We also analysed data regarding annual earnings of selected establishments of different types and size. The highest average per unit net annual income was recorded for the establishments under the category of 'work for themselves' and for others (Rs.19,903.70). Such units were processing their own raw materials for sale besides undertaking job work. Next to them were the units who process raw materials of their customers (work for others). Their average annual net income was recorded at Rs.17,077.78 followed by those processing their own raw materials for sale (Rs.13,277.78), while those who 'work for themselves and get the work done by others' were earning lowest average net annual income (Rs.9,000.00).

We find a positive relationship between the size of establishments, as indicated by the number of workers engaged by them, and annual earnings. The Table 1.2 indicates that the net annual earnings of units increase significantly with the increase in their size. However, the average earnings per worker decline consistently with the increase in the number of workers per establishment. This trend is possibly due to the organizational structure of the industry. A large majority of the establishments depend either solely or mostly on job work which provides only uncertainty about the quantum of work. The result is that most of the workers engaged in these units work as casual workers on piece rate. Their number varies according to the work orders received by entrepreneurs such a situation affects the productivity of workers, particularly during lean period when their per day output goes down considerably as they do not put in hard labour as they do during peak periods. Seasonal impact has also been considerable. The number of workers, therefore, stated for the last year may not necessarily be restricted to only those who worked throughout the year. It indicate the maximum number of workers engaged during any part of the year.

Table 1.2 : Average Earnings of Establishments According to their Size.

Size: No. of Workers	Average Net Annual Earnings	Index of Average Net Annual Earn- ings	Index of Average Net Earnings per worker
Upto 5	13,643.75	100.00	100.00
6 - 10	20,857.14	152.87	79.59
11 - 15	33,333.33	244.31	69.89
16 & above	43,666.67	320.05	56.68

The positive relationship between size of establishment and average net annual earnings indicate that larger size establishments were in a position to undertake more work than the smaller size units. They were obviously earning more profit. The negative relationship between size of establishment and average net earnings per worker indicate that the net earnings of the entrepreneurs with large units decline because of the increase in the number of non-household workers. The larger establishments engage more non-household workers while the smaller units depend mostly on the household workers. The result is that the establishments with smaller number of workers, depending mostly on household labour, earn more profit per worker than those with larger number of workers, mostly non-household. The Table 1.3 supports this analysis.

Table 1.3 : Size of Establishments and Average Net Earnings Per Unit of Output (in percentage).

Size: No. of Workers	Items of Products					Total (All items)
	Taj Model	Statues	Plates	Boxes	Other Items	
Upto 5	35.55	47.17	98.18	49.20	27.22	28.74
6 - 10	11.61	39.47	52.38	18.06	12.61	17.50
11 - 15	20.25	-	-	-	6.25	16.99
16 & above	-	-	42.86	10.00	19.14	19.85

It is evident from the Table 1.3 that the smaller size units were in a better position as far as their proportion of average net earnings per item of product is concerned. We

find the margin of profit in different items going down almost consistantly with the increase in the size of the establishments. It is possibly because of two major reasons : One, the smaller units depending solely or mainly on household labour were saving wages paid to the non-household labour by the larger units; Two, a significantly larger proportion the small establishments were selling their products directly to the household customers and were, therefore, able to earn higher profits.

We have also analysed the per unit of output average net earnings of the establishments and the dealers of some of the items. The comparison of the proportion of profit earned by the two in Table 1.4 presents a significant picture.

Table 1.4 : Comparison of Net Earnings of Stone Establishments and Dealers Per Unit of Output.

Establishment	Average Net Earnings per Unit of Output (in percentage)					Total All Items
	Taj Model	Statue	Plates	Boxes	Others	
Production Units	22.59	46.69	60.93	41.19	15.13	24.48
Dealers	44.32	89.40	61.76	102.05	25.56	40.22

We find the average net earnings of the establishments, in terms of percentage of total cost of production of an item, were significantly higher in respect of such items as statues, decorative plates and boxes for different purposes. They earn the highest margin of profit on plates which involves Inlay work through real stones. The Inlay work requires the skills of the highest order. In comparison, the market prices

of various items, usually charged by the dealers from the household customers is proportionately very high. The dealers earn an average profit of about 40 per cent as compared to about 25 per cent by the production units on all items. However, the dealers' share is higher by 147.8 per cent in boxes, 96.1 per cent in Taj models, 91.5 per cent in statues and 69 per cent in other decorative items as against the proportion of earnings of the production units. Comparing the proportion of earnings of the two, we find the dealers' share in all items was higher by about 64 per cent of the proportion of earnings of the production units. There were reasons for such a high proportion of earnings of the dealers : (a) most of the buyers of these items were tourists, mostly foreigners, who have the capacity to pay a higher price for artistic work; (b) the dealers have also to pay a high rate of commission to tourists guides and taxi drivers which is bound to inflate the price of items; and, (c) while most of the units depend on contract work the entrepreneurs processing even their own raw materials were financially incapable of maintaining their own show-rooms and therefore were dependant on dealers. The dealers benefitting from such a situation were exploiting the establishments by keeping the rates of buying from the establishments at the low level.

CHAPTER II

STONE INDUSTRY DURING THE LAST DECADE

Dealing with some of the general characteristics of the stone industry of Agra we find the entrepreneurs owning stone craft units were facing certain difficulties in expanding their establishments and improving their earnings. They felt : due to low income and hard work the strength of skilled workers in the area had declined considerably; health hazards in certain processes together with low income and lack of social security measures were preventing new workers from joining the industry; and various constraints were driving the existing workers away from the industry; the industry depends considerably on foreign tourists visiting Agra and if their number declines during any period they suffer most; because of the heavy commission paid by the dealers to the agents/ middlemen/tourists guides the prices of stone articles are enhanced to a very high level, however, the stone establishments processing these articles are paid the minimum; due to lack of support from the government the direct export by entrepreneurs is almost non-existent with the result the benefit goes to exporters located mostly outside Agra; and, the supply of good quality raw materials depends on the will of the dealers as they are the monopoly of a few dealers with the result the small household units suffer most. The entrepreneurs of these units have either to pay higher price for raw materials or accept inferior quality.

In the present chapter we will discuss the conditions of the industry during the last decade. On the basis of the data collected from the selected sample of entrepreneurs an attempt will be made to understand : (a) the changes in the performance of the units; (b) the various problems that the entrepreneurs were facing in running their establishments; and, (c) the prospects of their business/industry that they visualise in future.

We collected certain basic information about the performance of establishments over three periods of time, i.e., 10 years back, 5 years back and last year. These related to the employment position, annual sales, gross earnings from work done for others on contract basis and finally, the net annual income of the establishments. The idea was to know whether the stone craft establishments in Agra were expanding consistently. We received information for the periods of 10 years back, 5 years back and last year from 30, 39 and 45 establishments respectively.

The data pertaining to employment position during the last ten years indicate a decline in the number of workers engaged in the selected establishments. The average number of workers per stone unit were 6.52 ten years back which declined to 6.03 workers per unit in the next five years and increased marginally in the last year to 6.23 workers per unit. The trend of employment in the stone industry in Agra indicate two conditions:

(a) the industry is not expanding in terms of generating employment opportunities to new workers; and, (b) the establishments were becoming more household units by reducing the number of non-household workers and adding more household workers. In comparison to an average of 2.45 household workers ten years back the average number of such workers per unit increased to 2.52 five years back and further increased to 2.67 last year. In the case of non-household workers, however, the average number declined from 4.07 to 3.61 and 3.56 per unit during the same periods. Thus in addition to the existing household workers about 9 per cent joined their family units during the last decade. On the other hand, the strength of the non-household workers was reduced by about 12.5 per cent during the same period. It indicate a trend of greater dependence on household workers than on the non-household workers.

The change in the economic potentialities of the selected units was examined in terms of business handled and net income earned during the three periods of time, i.e., 10 years back, 5 years back and last year. For this analysis we have distributed the establishments into three categories: (a) work for themselves, i.e., those who process their own raw materials and market their production; (b) work for others, i.e., those who secure job work, process and raw materials of their customers and earn wages; and, (c) work for themselves and for others, i.e., those who process their own raw materials and market their products as well as undertake job work and earn wages.

In Table 2.1 we present a comparative position of the economic activities of the selected establishments during the last decade:

Table 2.1 : Economic Activities of the Stone Establishments During the Last Decade

Economic Activities	10 Years back	5 Years back	Last Year
Average Annual Sales/Earnings per Establishment (Rs.)	35,191.67	45,775.64	59,792.22
Average Net Income per Establishment (Rs.)	12,928.33	14,479.49	18,013.33
Proportion of Profit (%)	36.74	31.63	30.13

We find that the value of sales of items and/or earnings from work done for others have increased steadily during the three periods of the decade. However, the average net income of the establishments has not increased proportionately. In comparison to ten years back the average net income per unit increased by 12 per cent five years back and by 24.4 per cent last year over the average net income five years back. This is in comparison to the increase in sales/gross earnings by about 30 and 31 per cent in the two periods respectively. The net result that we found was that the proportion of profit declined consistantly. The situation, therefore, indicate a weak position of the entrepreneurs owning stone craft units. As evident the total business through sales and work done for others increased by 69.9 per cent from 10 years back to last year, the net income from these sales and earnings increased

by 39.3 per cent but the proportion of profit declined by about 18 per cent during the same period.

A future analysis of the three types of establishments, mentioned above is presented in Table 2.2.

Table 2.2 : Economic Activities of the Stone Establishments With Type of Units During the Last Decade

Type of Unit	Period		
	10 Yrs back	5 Yrs. back	Last Year
<u>1. Work for themselves:</u>			
Average Annual Sales (Rs) Per Unit	29,187.50	48,212.50	51,083.50
Average Net Income per Unit (Rs.)	12,406.25	13,387.50	13,277.78
Proportion of Profit (%)	42.51	27.77	25.99
<u>2. Work for Others:</u>			
Average Gross Annual Earning per Unit (Rs.)	39,000.00	24,555.56	27,611.11
Average Net Income per Unit (Rs.)	19,250.00	13,900.00	17,077.78
Proportion of Profit (%)	49.36	56.61	61.85
<u>3. Work for Themselves and for Others:</u>			
Average Annual Sales and Earnings (Rs.)	37,013.89	53,570.45	73,422.22
Average Net Income per Unit (Rs.)	11,755.56	15,113.64	19,903.70
Proportion of Profit (%)	31.76	28.21	27.11

The comparative position of the three types of units producing certain stone items indicate : (a) the average production and services per unit, in money terms, of the units under the category 'Work for themselves and for others' had almost doubled last year over the figures of the ten years back period, i.e., by 98.36 per cent. The average per unit net income from sales and services, however, did not rise proportionately as it increased by only 69.31 per cent last year from the net income earned by them ten years back. The proportion of profits last year had declined by 14.64 per cent from the proportion of profit earned ten years back; (b) the units under the category 'work for themselves' had suffered most during the last decade. Although their production, in money terms, had increased by 75.02 per cent last year from the production ten years back yet their net income had increased by only 7.02 per cent. The proportion of profit of these units had declined by 38.86 per cent from the proportion of profit they earned during the period of ten years back; (c) the position of the units under the category 'work for others' was found comparatively better than the position of the first two types of units despite the fact that their gross earnings from services had declined by 29.2 per cent as against their average earnings ten years back. Their average net income had declined by only 11.28 per cent. However, the proportion of their profits had increased by 25.3 per cent last year as against the proportion of profit earned by them ten years back.

On deeper analysis, we find the average value of annual sales or earnings from contractual work of the total selected units had gone up by 30.08 per cent five years back as against sales/earnings ten years back. In comparison to the position of five years back the units recorded an increase of 30.62 per cent last year. The over-all position, in money terms, therefore, indicate a progressive rise in business activities over the three periods of time. However, the proportion of profit has gone down by 13.91 per cent five years back and by 4.74 per cent last year in comparison to the earlier periods of ten years back and five years back respectively.

Of the three categories of units we find that:

1. The units under the category 'Work for themselves' were the smallest establishments in terms of their average net income per year. The increase in the net income of these units five years back over the ten years back period was 7.91 per cent which in comparison to five years back, declined by about 1.0 per cent last year while the turn-over of these units had increased by 65.18 per cent and 5.96 per cent over the earlier periods respectively. The margin of profit of these units had declined heavily during the period of five years back as against ten years back. It further declined last year. As compared to the period of ten years back the margin of profit of these units declined by 34.67 per cent five years back and in comparison to the period of five years back their margin of profit

declined by 6.41 per cent last year. Thus, the establishments processing their own raw materials and marketing their products had not benefitted from the rise in prices of their articles;

2. The units categorised as 'work for others' have shown some improvement in their performance at present. The average annual gross earnings of such units declined considerably, i.e., by 37.04 per cent five years back in comparison to their earnings ten years back. The units showed sign of improvement last year when their average earnings increased by 12.44 per cent against the average earnings five years back. The average net income, however, declined less than proportionately five years back as against the average net income ten years back. The units indicated significant progress last year when their average net earnings increased by 22.86 per cent over their earnings five years back. Despite a significant decline in average net earnings five years back their margin of profit had increased by 14.69 per cent against their margin of profit ten years back. Last year, their margin of profit further increased by 9.26 per cent as against their margin of profit five years back. The progress of the establishments in terms of increase in their margin of profit possibly indicate that : (a) because of shortage of stone workers in general and inlay workers in particular, the dealers giving job work to such units had no option but to increase their rates of work and, therefore, the margin of profit of these units had improved; and, (b) in order to discourage the entrepreneurs from processing their own raw materials and marketing their products the dealers of stone

items try to increase the rates of work. The strategy pays them and they get their work done in time.

3. The units engaged in processing their own raw materials as well as in job work categorised as 'work for themselves and for others' have shown significant progress during the last ten years. As compared to the average annual sales and earnings from contractual work ten years back their turn over increased by 44.73 per cent during the five years back period. Comparing the position five years back their average turn over had increased by 37.06 per cent last year. The average net income of these units had increased by 28.57 per cent and 31.69 per cent in the two periods respectively. However, the margin of profit had declined over the years. In comparison to the period of ten years back the proportion of their profit declined by 11.18 per cent five years back which further declined by 3.90 per cent last year as against the margin of profit earned five years back. Such a trend is similar to the units processing their own raw materials and marketing their products. The mixed types of units were earning a very low margin of profit from the sale of their own products, which has affected the proportion of profit of these types of units.

The economic conditions of the establishments indicate that:

(a) there was very little scope for the units to market their own products partly because most of them were incapable of maintaining sufficient working capital for purchasing adequate

quality of raw materials and partly because their resources for the marketing channel were very limited. Most of their direct customers were middle class people coming from other parts of the country, who had a limited capacity to pay for their products; (b) the dealers of stone items generally pay a low price to the entrepreneurs, if they want to sell their products to them. The dealers were encouraging these establishments for the processing of job work only as they fear that if these units start processing only their own raw materials they might start imposing their terms on them. Such a situation they would not like to emerge.

We have further analysed the data of average net annual earnings according to the size of units as indicated by the number of workers. The details are presented in Table 2.3.

Table 2.3 : Average Net Annual Earnings Per Unit According to Its Size

Size of Unit (No. of Workers)	Average Net Annual Earnings (Rs.)		
	10 Years back	5 Years back	Last Year
Upto 5	7,972.50	10,328.57	13,643.75
6 - 10	18,000.00	19,300.00	20,857.14
11 - 15	23,000.00	31,000.00	33,333.33
16 & above	27,666.67	36,666.67	43,666.67
Average in All Units	12,429.31	14,676.32	18,080.00

Through Table 2.3 we find the average net annual income of the stone establishments of all sizes had consistently increased

during the three periods of time, i.e., 10 years back, 5 years back and last year. Comparing the average net income 10 years back and last year we find the highest percentage of increase was recorded by the smallest units (71.14 per cent) with a workers strength of upto 5. The rise in the average income per unit having workers strength in between 6 and 10 was, however, marginal (15.07 per cent) during the same period. In the next two size groups of units, the average net income per year increased considerably and consistantly. The establishments having 11 to 15 workers recorded an average increase of 44.93 per cent and units with 16 or more workers showed the rise in their average income was 57.83 per cent during the last ten years.

On further analysis of the increase in net income during the three periods we find a consistant rise in the first two size groups of units. As against the average income ten years back, the establishments having upto 5 workers registered an increase of 29.55 per cent during the period interval of 5 years back. In comparison to the net average income 5 years back the units of the similar size recorded an increase of 32.10 per cent. The units having workers between 6 and 10 showed an increase of 7.22 per cent and 8.07 per cent respectively during the same periods. The larger establishments have, however, not shown such a steady growth in terms of average net income per unit earned by them during the period of last year. The units with workers strength in between 11 and 15 indicate an increase in their average net income by

34.78 per cent five years back as against the average income 10 years back, and by 7.53 per cent last year as against their average net income 5 years back. The units with 16 or more workers recorded an increase of 32.53 per cent five years back over their average net income 10 years back. In the next five years, they have also shown a slow growth as the rise in the average net income during the period of last year was 19.09 per cent as against the average net income 5 years back.

The trend of the data pertaining to the last decade indicate that : (a) the smallest units having upto five workers were progressing much better than other establishments, (b) the larger establishments either with 11 - 15 workers or 16 or more workers earned a significantly higher profit during the period of five years back as compared to their earnings of ten years back period, and, (c) in the last five years their pace of growth in terms of their earnings in comparison to the period of five years back had slowed down.

We have also examined the employment position of the sample units during the last decade. It has been analysed in relation to different types of units.

Table 2.4 : Type of Unit and Employment Position During the Last 10 Years

Type of Unit	Average Employment Per Unit								
	10 Years back			5 Years back			Last Year		
	HH	NHH	Total	HH	NHH	Total	HH	NHH	Total
Work for Themselves	2.80	3.40	6.20	3.60	3.40	7.00	3.86	4.14	8.00
Work for Others	3.40	5.00	8.40	3.20	2.90	6.10	2.91	3.45	6.36
Work for Themselves & for others	2.11	4.00	6.11	1.91	4.14	6.05	2.26	4.23	5.70
Total (Average per Unit)	2.45	4.07	6.52	2.42	3.61	6.03	2.67	3.56	6.23

HH = Household Workers; NHH = Non-Household Workers.

Of the units that existed during the three periods, i.e., 10 years back, 5 years back and last year, we find the percentage of establishments working without non-household workers had declined consistently from 46.7 10 years back to 35.9 5 years back and 24.4 last year. This may be interpreted as in the succeeding years the household workers in some of the units were not able to handle the quantum of work because it exceeded their capacity. On further analysis, we find a declining trend in the average number of total workers per establishment. The number of non-household workers has declined consistently as compared to the household workers.

The employment position of different types of units during the last ten years indicate that : (a) the size of establishments in terms of number of workers of the units categorised as 'work for themselves' has consistently increased while that of those in the categories 'work for themselves and for others' and 'work for others' have declined; (b) except in the case of the units who work for themselves the average number of household workers have declined over the period; and, (c) the size of the establishments in terms of average number of total workers per unit have remained more or less same during the three intervals in the last ten years.

The relationship between the average net annual earnings per workers and the size of establishments was also examined to understand if larger number of workers contribute to more or less than proportionate income of the units. Table 2.5 analyses this aspect in respect of the three intervals in the last ten years.

Table 2.5 : Average Net Annual Earnings per Worker in Different Size of Units

Size of Unit	Average Net Annual Earnings per Worker		
	10 Years back	5 Years back	Last Year
Upto 5	4,437.80	4,121.74	3,696.05
6 - 10	1,534.48	1,500.00	3,071.43
11 - 15	1,380.00	2,110.00	3,461.54
16 +	921.88	1,742.86	2,079.37
Total	1,938.56	2,316.02	3,046.11

Two significant trends may be observed from the data in Table 2.5, (a) the smallest size units were consistently losing net annual income per worker during succeeding periods; and, (b) the medium and large size establishments showed an increase in the average net annual income per worker during the same periods. The implications of this trend are serious as a large number of stone units (71.1 per cent) were smallest, employing upto 5 workers. These units were mostly run by the household workers and their dependance on their own units, despite declining income, shows that they had no better alternative jobs in the industry. This implies the craft was not expanding.

Labour Problems

We have found the average employment per unit during the last ten years has declined by about 4.5 per cent. This was due to a substantial decline in the average strength of non-household workers, i.e., by 12.5 per cent in the sample units.

The employment of the household workers, on the other hand, increased by 9.0 per cent per unit during the same period. Thus, the trend indicate greater dependence on the household workers.

One possible explanation for greater dependance on household labour may be that the skilled non-household labour is not easily available. When asked whether the non-household workers were easily available when there was more work in the unit, 57.14 per cent of the entrepreneurs replied in negative. In the event of non-availability of hired labour during peak period, 45.83 per cent of the entrepreneurs were carrying out their activities by using unutilised family labour; 25.0 per cent of each were compelled to get their work done by other units on contract basis and by working overtime and paying substantially higher wages; and, 4.17 per cent suffered loss due to their inability to complete the job work in time.

The recruitment of the non-household workers is generally done directly without involving middlemen. To attract the known skilled workers even advance, are given by the entrepreneurs. The new workers, however, are recruited first on trial basis and their wages are determined after examining their level of skills.

Only one-fifths of the establishments reported that they were facing problem of labour turn-over. The reasons for such a problem included non-fulfilment of workers demand for (a) higher wages (55.56 per cent), (b) loans and advances (33.33 per cent); and, (c) working simultaneously in more than one

establishment (11.11 per cent). The reasons for labour turnover indicate the shortage of skilled labour in the industry. Of the sample of 45 units, six (13.33 per cent) were facing the problem of absenteeism which caused delay in completing job work in time. In an effort to retain skilled workers three entrepreneurs reported that they were offering special incentives to them, which included advances, tea and lunch.

Marketing and Main Customers

Of the selected sample, 31.11 per cent establishments were processing their own raw materials and marketing their products while 22.22 per cent were undertaking job work only. The remaining units, i.e., 46.67 per cent, were engaged in processing their own raw materials as well as in undertaking job work. The dependance of such units on job work was, however, heavier.

We asked the respondents to identify main customers of their products or services and to indicate roughly what percentage of total sales/services they account for. The categories of customers included in the interview schedule were : Household customers, small retailers, wholesalers/stockists, Government emporium, private emporium, other producers, foreign buyers/firms, exporters and others. However, none of the respondent mentioned government emporium and other producers among their customers.

A large proportion of the production of units engaged in processing their own raw materials was marketed through

wholesellers/stockists (40.71 per cent) followed by 30.36 per cent through private emporiums; 7.14 per cent each through small retailers and others and 6.43 per cent through exporters while 8.21 per cent was marketed to the household customers directly.

A large proportion of the work orders (61.88 per cent) to whose undertaking job work was coming from private emporiums; followed by 6.93 per cent of the work from wholesalers/stockists; 1.49 per cent from exporters and 29.70 per cent from others. Thus, private emporiums were the major source of job work for the units working for others.

The main customers of the products of the units in the category of 'work for themselves and for others' were wholesalers/stockists (58.0 per cent) followed by the small retailers (17.42 per cent), private emporium (10.98 per cent), exporters (5.73 per cent), household customers (3.58 per cent), foreign buyers/firms 1.91 per cent and others (2.39 per cent). Almost a similar trend existed in the case of customers of the services of these units : 63.25 per cent of the job work was coming from the wholesalers/stockists; 18.62 per cent from small retailers; 13.60 per cent from private emporium; 1.91 per cent each from the foreign buyers/firms and household customers and 1.67 per cent from the exporters.

Exports

We also enquired about the position with regard to export of stone items. Only one of the units in the sample was exporting its products directly. The value of exports of Taj Mahal model of this unit was Rs.20,000.00 five years before while it

exported the same item worth Rs.50,000.00 last year. However, a larger number of units were exporting their items indirectly, i.e., through exporters/dealers. Five years before, the total value of indirect exports of 6 units was estimated at Rs.283000.00. Last year, 7 units reported indirect export of their items worth Rs.4,90,000.00.

From the value of direct and indirect exports during the two periods, i.e., 5 years back and last year, we find a significantly growing trend in the exports of stone items. The rise in value term in the direct export was 150 per cent while in the indirect exports it was 57.76 per cent. The items exported to some of the Western and European countries included : table lamps, statues, different sizes of boxes, Taj Mahal model, decorative plates, cups, ash trays and jewellery.

Two-thirds (30) of the entrepreneurs interviewed believed the export of stone items was increasing. Most of them (60.0 per cent) attributed it to the increasing demand of Indian craft items in the foreign countries, 26.67 per cent of the interviewees felt the demand for stone items has increased in the foreign market because of the improvement in the quality and workmanship of these items while 13.33 per cent said the credit goes to the exporters' efforts in expanding the market.

Work Orders

Nearly 84 per cent of the entrepreneurs informed that they get work order from different types of customers. In such cases, the units are supplied raw materials, i.e., stone and

decorative stones in case the items require inlay work. They are also given part-payment ranging from 10 per cent to 50 per cent of total bill in advance, to meet the requirements of working capital. The main source of work orders were the whole sellers followed by private emporiums selling stone items and exporters.

To a question to quantify the proportion of products made to order 52.63 per cent of the entrepreneurs said in between 76 and 100 per cent; 21.05 per cent of the entrepreneurs were doing work on order in between 51 and 75 per cent; 15.79 per cent in between 25 and 50 per cent and 10.53 per cent of the entrepreneurs upto 25 per cent of their total production. Thus, about three-fourths of the entrepreneurs were depending on work orders to the extent of more than half of their production capacity.

As regards designing of different items about 78 per cent of the respondents informed that they themselves design their products. Of the remaining 22 per cent of the entrepreneurs 60 per cent were getting designs from their customers while 40 per cent were copying the existing designs.

The majority of the entrepreneurs (60.0 per cent) had most of their domestic customers (including households, traders, retailers, etc.) in the Agra itself. One-third (33.33 per cent) of the entrepreneurs had their customers partly in the same city and partly in other cities. Thus, only 6.67 per cent of the respondents were, therefore, depending on customers from other cities such as Delhi, Bombay and Calcutta.

Problems and Future Prospects

About half of the entrepreneurs (48.89 per cent) reported that they were facing serious competition from other establishments in the industry. Half of them (50.0 per cent) were facing competition from the establishments of their own size; 27.27 per cent were facing competition from larger establishments; 18.18 per cent from similar as well as larger establishments both while 4.55 per cent from the units smaller than their own.

As regards the difficulties that they face due to competition with other units, over half of them (59.09 per cent) complained about the low return of their products resulting in a meagre margin of profit; 18.18 per cent maintained that their sales were affected because in comparison to the larger units their costs were higher. Obviously, the sale prices of their items were also higher than those of the larger establishments. About one-seventh of the entrepreneurs (13.64 per cent) felt that in maintaining lower prices of products the quality of the items had deteriorated. They were unhappy that ultimately such a trend will affect the craftsmanship. Some (9.09 per cent) of the respondents felt the competition was affecting the quantum of sales and the price of items both.

The entrepreneurs were asked about their perception of the future prospects of the stone industry. Their responses does not indicate a very happy situation as 42.22 per cent of them thought the future of the industry was uncertain or bleak while

35.56 per cent considered it 'so - so'. Thus, only about one-fifths (22.22 per cent) of the respondent felt the stone industry has a bright future.

Those who considered the future of the industry bright were also asked to about the reasons for their optimism. Their main reason was the increasing demand of their products in the foreign market. Some of them (10.0 per cent) based their hopes on the continuing appreciation of artistic items by a section of the society.

We also asked those who thought the future of the industry was uncertain or bleak to explain the reasons of their pessimism. Their reasons included : no governmental support to the industry (31.57 per cent); difficulties in getting adequate raw materials (26.31 per cent); low returns of their labour due to tough competition (10.52 per cent); decline in the number of highly skilled workers due to health hazards in the job (10.52 per cent); etc.

The entrepreneurs were asked whether they were satisfied with the progress in their business. Of the one-third who replied in affirmative were further asked to identify the factors contributing to the satisfactory progress. Most of them identified more than one factor responsible for satisfactory growth in their business.. The most important factors for a large proportion of respondents were the 'home market' (80.0 per cent) availability of the skilled labour (80.0 per cent) and reasonable income (73.33 per cent) followed by

availability of raw materials (60.0 per cent),¹ foreign market (40.0 per cent), availability of finances (26.67 per cent) and governmental assistance (13.33 per cent).

Two-thirds of the respondents expressed their dissatisfaction over the conditions of their business. The reasons assigned to the unsatisfactory conditions of their business were multiple. The most important among them, for a large proportion of the interviewees, were : involvement of the middlemen (80.0 per cent) which reduces their margin of profit, non-availability of finances (80.0 per cent) and better quality raw materials at reasonable prices (76.67 per cent), indifferent attitude of the government towards this craft (40.0 per cent), shortage of skilled labour (33.33 per cent) and power (30.0 per cent) and a tough competition in the trade (26.67 per cent) resulting in lower margin of profit.

Of the sample of 45 entrepreneurs 41 (91.11 per cent) had a desire to increase the scope of their business and of them 39 (95.12 per cent) felt they would be facing some problems in expansion. A number of respondents identified more than one problems they thought they would be facing. The major problem that they apprehended was the shortage of finances as 92.3 per cent of them maintained that securing sufficient working capital will be very difficult. Nearly one-third of the respondents (30.77 per cent) thought the availability of good quality raw materials at reasonable rates would be a problem in the expansion of their business. Problems in marketing of their products and non-availability of adequate number of skilled

workers were mentioned by 10.26 per cent and 2.57 per cent of the entrepreneurs respectively. To overcome these difficulties, they suggested certain measures, such as : liberal loans from the financial institutions along with some subsidy (76.92 per cent), distribution of raw materials through public agencies (25.64 per cent), discouraging the involvement of middlemen in the marketing (7.7 per cent) and exemption of stone items from sales tax (5.12 per cent).

Nearly half of the sample (48.89 per cent) reported having sought some financial assistance from the government for their establishments. However, only 13.63 per cent of them could get it. Only about 9 per cent of the sample reported that there were special schemes of the government for assisting the stone industry. The schemes identified by them were the facilities of loan and subsidy to the registered units. They suggested the facility should be extended to the unregistered units also and the assistance should be provided to the genuine units after a careful survey of their status.

The entrepreneurs were further probed about the kind of support/assistance they needed urgently from the government. Nearly half of them mentioned more than one requirement for the development of their establishments. The most important need of 82.22 per cent of entrepreneurs was that of the financial assistance while 37.78 per cent of the respondents wanted the raw materials should be made available by the government agencies; 17.78 per cent wanted support for marketing of their products and 6.67 per cent needed assistance in the export of their products.

The respondents were further asked to specify the benefits they visualise if they get the support/assistance from the government. Nearly one-fourth of them (24.44 per cent) could not specify the possible benefits. Most of those who identified the benefits from the governmental support/assistance were expecting more than one advantage. A majority of them thought it will help in the expansion of their units (58.82 per cent) and increase their production capacity (55.88 per cent). About one-fourth of the respondents (26.47 per cent) felt it will help generate more employment for the stone workers and 11.76 per cent of the entrepreneurs thought the assistance will increase their exports.

Suggestions from Entrepreneurs

At the end the entrepreneurs were asked to suggest measures for (a) the protection of interests of the industry, and (b) workers as to how they can earn higher wages. Most of the respondents offered more than one suggestions. The most important suggestion was that the raw materials should be supplied to the entrepreneurs through some public agency. This suggestion was given by 55.56 per cent of the interviewees. The problems in getting good quality stones at reasonable rates were highlighted by the respondents on a number of occasions during their interviews. They alleged that (a) only the richer entrepreneurs were getting good quality stones while the smaller and poorer entrepreneurs were getting small pieces at same prices; (b) due to monopoly of stockists they were compelled to

pay higher rates; and (c) in order to help the larger establishments the stockists create artificial scarcity of raw materials, particularly, during the rainy seasons.

The other suggestions were also in favour of government intervention and support. These included : marketing facility (31.11 per cent), special programme for the protection and development of the industry (22.22 per cent), liberal financial assistance (17.78 per cent), facilities and encouragement for export (8.89 per cent), exemption of their production from sales tax, development of new techniques in production and prevention of middlemen from every level of their activity (4.44 per cent each).

The suggestions of the entrepreneurs as to how the workers can earn higher wages indicate that a majority of the respondents had no serious concern for them. One-third of the interviewees did not offer any suggestion while 22.22 per cent maintained that the prices of their products will increase if the wages of workers are enhanced. Thus, only 44.44 per cent of the respondents offered their suggestions. These included : easy availability of the required raw materials (15.56 per cent); protection of the industry by the government; financial assistance to entrepreneurs, sufficient electric power and assistance in exports of their products (17.77 per cent); introduction of new techniques of production (6.67 per cent); and, training centre for the workers (4.44 per cent). Thus, most of the entrepreneurs extended their suggestions in such a way that workers interest was linked with their interest and that the workers can earn higher wages only when the interests of the industry as well as of the entrepreneurs are protected by the government.

CHAPTER III

WORKERS IN THE STONE INDUSTRY : A CENSUS

In order to understand the conditions of workers engaged in the industry we conducted an indepth survey of 10 per cent of total workers. Since there were no reliable estimates of the number of craftsmen in the stone industry we also conducted census of the work-force. The census schedule sought information mainly on : (a) the employment position of respondents; (b) economic conditions of the household; and, (c) the type of their living accommodation besides their social and occupational background.

The field team of the project found that there were 1892 craftsmen in the stone industry in Agra district. Out of them 95 workers were working at Radha Swami Mandir, Dayal Bagh. They could not be interviewed by the team as they were afraid that they might loose their job if they gave interviews to the survey team. Some of them, however, alleged that they were getting much less wages than what were recorded. The break-up of these workers according to their nature of work was : 49 stone workers, 18 pachchikars and 28 polishers. Thus, the census schedule was administered on the remaining 1797 workers. The presentation in this chapter is based on the responses recorded in the census schedule.

Background Characteristics

Out of the total of 1797 workers engaged in the stone

industry 977, i.e., 54.37 per cent were Muslims and 820 (45.63 per cent) were Hindus. Among the Hindus, more than half (52.07 per cent) belonged to the upper castes. They were mostly Brahmins and Thakurs. Next to them were from the Backward Castes (41.34 per cent) followed by the Scheduled Castes (6.59 per cent).

About three-fourths of the workers (75.13 per cent) were young, in the age group of upto 30 years and only 3.23 per cent in the age group of above 50 years. Half of the population consisted of illiterate workers while only 3.95 per cent had studied after High School. The Table 3.1 presents the distribution of workers according to age groups and educational levels.

Table 3.1 : Educational Level of Workers in Different Age Groups

Education	Age Groups (in years)					Total
	Upto 20	21-30	31-40	41-50	51 & above	
Illiterate	336 55.29	322 46.80	120 45.11	55 44.72	37 63.79	900 50.08
Literate	28 4.23	32 4.65	14 5.26	11 8.94	9 15.52	94 5.23
Upto Primary	125 18.88	99 14.39	46 17.29	21 17.07	6 10.35	297 16.53
Jr. High School	94 14.20	117 17.00	43 16.17	16 13.01	2 3.45	272 15.14
High School	37 5.59	78 11.34	29 10.90	16 13.01	3 5.17	163 9.07
Above High School	12	40	14	4	1	71
Total	662 36.84	688 38.29	266 14.80	123 6.84	58 3.23	1797 100.00

We find in Table 3.1 that the majority of consisted of younger workers, i.e., in the age group of upto 30 years. Over half of them, i.e., 50.96 per cent were illiterate. The proportion of illiterate workers in the youngest and the oldest age groups (upto 20 years and 51 years and above) was higher than in the 21-30, 31-40 and 41-50 years age groups. The formal education in the middle age groups was found more than in the youngest and the oldest age groups. Significant differences are evident in the educational levels from Junior High School to above High School standards. This suggests that most of the young children who joined the industry as apprentice did not have interest in pursuing studies.

As regards the period of their association with the stone industry we find that some of them had joined it as early as when they were about seven years old. There were also some workers who joined the industry in their late forties. However, the majority of the respondents were found associated with the stone industry since their adulthood. The Table 3.2 indicates distribution of workers in different age groups and the duration of their association with the stone industry.

Table 3.2 : Age of Workers and Periods of Their Association With the Stone Industry

Age Groups (in years)	Period in Stone Industry (in Years)			
	Upto 10	11 - 20	21 & above	Total
Upto 20	597 90.18	65 9.82	-	662 36.84
21 - 30	338 49.13	328 47.67	22 3.20	688 38.29
31 - 40	54 20.30	120 45.11	92 34.59	266 14.80
41 - 50	8 6.50	25 20.33	90 73.17	123 6.84
51 & above	2 3.45	8 13.79	48 82.76	58 3.23
Total	999 55.59	546 30.39	252 14.02	1797 100.00

We find that nearly 56 per cent of the workers were working in the stone industry since a period of upto 10 years, about 30 per cent were in this craft for a period in between 11 and 20 years and about 14 per cent for more than 20 years. The data indicate a positive relationship between the age of workers and their period of association with the industry. Such a relationship also indicate the possibility of a large number of families specialising in the stone craft and, therefore, their children also join the craft at an early age.

We further analysed the average age when workers joined the industry and the average period they have spent in it. The Table 3.3 presents the details of this analysis.

Table 3.3 : Average Age of Workers at Present and At the Time They Joined the Industry

Age Group	Average Age (in years)		
	At Present	When joined the Industry	Average Period spent in the Industry
Upto 20	17.0	11.5	5.5
21 - 30	27.2	15.5	11.7
31 - 40	35.1	23.6	11.5
41 - 50	43.1	25.2	17.9
51 & above	63.5	30.0	33.5
Average of Total	24.8	15.2	9.6

A number of significant points emerge from the Table 3.3. Firstly, the average age of the total workers in the industry was considerably low, i.e., 24.8 years, which indicates the majority of the workers were young. Secondly, the workers joined the craft in their early age as the average age at that point of time was 15.2 years. Thirdly, during the recent past the age of workers at joining time was significantly lower than in the preceeding periods. This suggests that now more and more workers join the industry during their childhood than in the earlier periods. And, fourthly, a significant proportion of the craftsmen work even during their old age as the highest average age of workers was 63.5 years. In fact, there were a significant number of workers in their seventies. Their presence in the industry reflects the weak economic conditions of their households. Such a situation prompts us to suggest that their skills should be utilized for training the new workers and they should be assisted financially by the government agencies.

The family occupation of a majority of workers (65.22 per cent) was stone craft followed by Artisans (14.52 per cent), Trade (7.29 per cent), Agriculture (5.96 per cent), Service (5.40 per cent) and Labour (1.61 per cent). Thus, a majority of the workers belong to the families who specialised in the stone craft and most of the male members of such households were inducted into this industry.

The highest proportion of workers (38.29 per cent) were engaged in inlay work popularly known as Pachchikari. It seems

a larger number of workers were engaged in this process because it is a highly skilled job which fetches them the higher rates of wages. Since it is a very slow process the industry, therefore, has demand for a larger number of workers for this activity. Next to them were those engaged in making various types of statues followed by those making replicas of Taj Mahal or their parts (16.30 per cent), different types of boxes, frames, ash trays, etc. (14.25 per cent). Some of the workers engaged in other processes included netting work (7.40 per cent), stone cutting (3.0 per cent) and polishing, colouring and finishing, etc. (2.95 per cent).

Employment Position

The employment position of the workers was also enquired. It was found that most of the workers were employed as regular either as non-household workers or as self-employed. A large proportion of them (60.55 per cent) were working as regular non-household workers while 30.83 per cent were self-employed. Thus, a small proportion of the workers (8.62 per cent) was engaged as casual workers.

On an analysis of the number of days the workers normally work during a month we find 2.17 per cent were getting work for a period of upto 15 days; 12.19 per cent for 16 to 21 days; 60.27 per cent for 22 to 27 days and 25.37 per cent for 28 days or more. A small proportion of the casual workers (28.39 per cent) get employment for 22 to 27 days a month. The majority of such workers (54.19 per cent) were getting work for 16 to 21

days while 17.42 per cent were normally working for a period of upto 15 days a month. A larger proportion of the self-employed craftsmen were getting work for a smaller number of days per month than the regular non-household workers. Among the self-employed 1.62 per cent were able to work for upto 15 days a month and 15.70 per cent for 16 to 21 days a month. In comparison, only 0.28 per cent of the regular employees were getting work for upto 15 days and 4.41 per cent for 16 to 21 days a month. Nearly three fourths of them (72.52 per cent) were able to work for 22 to 27 days and 22.79 per cent for 28 days or more. Among the self-employed, 45.13 per cent were able to work for 22 to 27 days and 37.55 per cent for 28 days or more. A lesser percentage of regular workers as against the self-employed working for 28 days or more may be due to their availing of the weekly holidays. The trend, however, indicate that a larger proportion of the self-employed were unable to work for the full month. This might be due to the weak economic status of these craftsmen due to which they were unable either to secure bulk job orders from the dealers or to purchase raw materials in larger quantity. In fact, they were buying smaller quantity of raw materials, securing smaller job work and also selling their products to the direct customers. In the absence of sufficient working capital they buy a small quantity of raw materials only after they are able to get return of their products or job work.

We also recorded the average number of hours the workers were working per day. We find nearly one-fourths of them were

not able to work for the full day of eight hours. Some of them (10.46 per cent) were working for upto five hours per day while some were generally getting work for 6 -7 hours a day. However, 18.75 per cent of the workers remain engaged in their work for 10 or more hours a day. Thus, 57.60 per cent of them were working for 8 - 9 hours per day.

Earnings

We analysed the average monthly earnings of the stone workers. Those with an average monthly earnings of upto Rs.300.00 consisted of 24.32 per cent of workers; while the average monthly earnings of 15.86 per cent workers was in between Rs.301 - Rs.400; of 23.37 per cent workers in between Rs.401 - Rs.500; of 17.20 per cent in between Rs.501 - Rs.600; of 8.62 per cent workers in between Rs.601 - Rs.700; of 5.45 per cent workers in between Rs.701 - Rs.800 and of the 5.18 per cent craftsmen above Rs.800 per month. Thus, 40.18 per cent of the workers were earning upto Rs.400, 49.19 per cent in between Rs.401 - Rs.700 and 10.63 per cent above Rs.700 per month.

While examining the average monthly income and employment position we find the income of the casual workers was very low. Over three-fourths of them (78.06 per cent) were earning upto Rs.300 and 10.32 per cent in between Rs.301 and Rs.400 per month. Thus, 88.38 per cent of such workers had an average monthly income of upto Rs.400; 9.04 per cent had in between Rs.401 and Rs.700, and only 2.58 per cent were in the income group

of over Rs.700; while the proportion of the regular employees and the self-employed in the lower income group, i.e., upto Rs.400 per month, were almost equal (35.85 per cent and 35.20 per cent respectively) significant differences were found in their proportions in the middle and higher income levels. A majority of the regular employees (56.61 per cent) were earning in between Rs.401 - Rs.700 whereas 45.84 per cent of the self-employed were found in this income group and 18.96 per cent of the self-employed were earning over Rs.700 per month as against 7.54 per cent of the regular employees.

Most of the workers had specialised in one or the other processes of the craft. Some of them, however, were engaged in making the complete item themselves. We tried to analyse the income levels of the workers engaged in different kinds of jobs. The highest proportion of the workers (77.44 per cent) making net in various items were placed in the lowest income group of upto Rs.400 per month. Only 1.50 per cent of these workers were earning over Rs.700 per month. Nearly half of the workers (49.05 per cent) engaged in polishing, finishing and colouring of the products were earning upto Rs.400 per month. However, a significantly higher percentage of workers (13.21 per cent) engaged in this activity were earning above Rs.700 per month. Among the workers engaged in inlay (Pachchikari) work 40.40 per cent were earning upto Rs.400; 47.10 per cent in between Rs.401 - Rs.700 and 12.50 per cent over Rs.700 per month. One-third of the workers (33.43 per cent) making statues were earning upto Rs.400 per month, 57.82 per cent in

between Rs.401 and Rs.700 and 8.75 per cent above Rs.700 per month. Of those making Taj model, 38.23 per cent were earning upto Rs.400, 51.87 per cent in between Rs.401 - Rs.700 and 9.90 per cent above Rs.700 per month.

We also analysed the average monthly earnings in relation to average number of working hours per day. A sizeable section of the working population (23.65 per cent) was not able to work on an average of eight hours per day. Some of them (10.46 per cent) get work for even upto 5 hours while others (13.19 per cent) were working for 6 to 7 hours a day. This suggests the shortage of work for the craftsmen, particularly, those in the self-employed and 'casual' categories. The quantum of work for the highly skilled workers, particularly, those engaged in the inlay work was more than sufficient as some of them (18.75 per cent) were working for 10 or more hours per day. A majority of the workers (57.60 per cent) were working for 8-9 hours a day.

One can presume that income has a direct relationship with the quantum of work done or time spent in doing their job. However, in the stone craft, equally or sometime even more important is the skill or the craftsmanship that is involved in the work. We find evidence of the importance of the skills in relation to income. For example, some of those working even for upto 5 hours per day were not earning the lowest while all of those working for an average of 10 or more hours a day were not in the highest income group. One-third of them (33.53 per cent) were earning upto Rs.400 per month while 13.65

per cent had income of over Rs.700. The Table 3.4 presents the analysis of the relationship between average monthly income and average number of working hours per day.

Table 3.4 : Average Monthly Income and Average Working Hours Per Day

Income Group	Working Hours			Total
	Upto 5	6 - 7	8 & above	
Upto 400	173 92.02	141 59.49	408 29.74	722 40.18
401 - 700	11 5.85	82 34.60	791 57.65	884 49.19
701 & more	4 2.13	14 5.91	173 12.61	191 10.63
Total	188 10.46	237 13.19	1372 76.35	1797 100.00

While a vast majority of those working for the shortest duration per day (92.02 per cent) were in the lowest income group followed about 60 per cent of those working for 6 - 7 hours a day, the percentage of workers devoting larger number of hours per day but earning the lowest income (29.74 per cent) is more significant. This supports the earlier explanation that devotion of long hours of work in the crafts does not necessarily mean a handsome monetary return.

The average monthly income of workers engaged in different types of establishments was also examined. These were three types of establishments with which the workers were associated. These included : own family unit, small household unit and the karkhana. The highest percentage of workers, i.e., 44.85, were

engaged in the own family units followed by the workers in karkhana type establishments (31.28 per cent) and the small household units (23.87 per cent). Those engaged in the household units included the self-employed as well as the household workers. A comparatively lower percentage of workers of these establishments were found in the lower income group (upto Rs.400) and a higher proportion in the higher income group (Rs.700 and more) as against the workers in other types of establishments. The income position of those working in karkhanas was slightly better than those working as non-household workers in the small household units. The analysis has been presented in Table 3.5.

Table 3.5 : Average Monthly Income of Workers in Different Types of Establishments

Income Group	Type of Establishment			Total
	Own Family Unit	Small Household Unit	Karkhana	
Upto 400	312 38.71	185 43.12	225 40.04	722 40.18
401 - 700	371 46.03	220 51.28	293 52.13	884 49.19
701 & more	123 15.26	24 5.60	44 7.83	191 10.63
Total	806 44.85	429 23.87	562 31.28	1797 100.00

In the over-all position, a larger proportion of workers in the own family units had higher average monthly income followed by the workers in the karkhana type establishments and small household units. This suggests that those having control over their products by being the household workers or shareholders, even in very small establishments, were earning more than the non-household workers.

In Table 3.6 we have explored the size of the families of workers and the number of working members in their families. This has been done to understand (a) the family size norms; and, (b) the proportion of the workforce among the families of the craftsmen.

Table 3.6 : Total Number of Family Members and Number of Working Members

Family Size (No. of Members)	Number of Earning Members							Total Families	Total Family Members	Total Earning Members
	1	2	3	4	5	6	7			
2	53 86.89	8 13.11						61 3.40	122	69 56.57
3	38 51.35	33 44.59	3 4.06					74 4.12	222	113 50.90
4	84 52.50	59 36.88	15 9.37	2 1.25				160 8.90	640	255 39.84
5	99 42.86	93 40.26	19 8.23	18 7.78	2 0.87			231 12.85	1155	424 36.71
6	89 36.33	101 41.22	47 19.18	7 2.86	1 0.41			245 13.63	1470	465 31.63
7	43 16.17	123 46.24	53 19.92	38 14.29	8 3.01	1 0.37		266 14.80	1862	646 34.69
8	34 15.67	70 32.26	71 32.72	33 15.21	9 4.14			217 12.08	1736	564 32.49
9	13 8.02	48 29.63	60 37.04	26 16.05	15 9.26			162 9.02	1458	468 32.10
10 or more	16 4.20	73 19.16	112 29.40	86 22.57	60 15.75	21 5.51	13 3.41	381 21.20	3810	1359 35.67
Total	469 26.10	608 33.83	380 21.15	210 11.69	95 5.29	22 1.22	13 0.72	1797 100.00	12475	4363 34.97

The average number of members per family of the craftsmen was 6.94. It seems the trend in the family size norms is in favour of large size families. Even if we consider a five members family as a small one there were only 29.27 per cent of such households. The families of six to eight members consisted of 40.51 per cent while 30.22 per cent of the households had nine or more members. In fact, over one-fifths of the households had ten or more members. The trend suggests the preference of joint family system among the craftsmen.

The average number of working members per family was 2.43 and the percentage of the working members to total members in the households was 34.97. The percentage of earning members in the small families of upto 5 members was higher (40.25) than in the medium (33.05) and the large (34.68) size families with 6 to 8 and 9 or more members respectively.

The average annual income of workers engaged in the stone industry was Rs.5584.56 while those in other occupations had an average annual income of Rs.5540.49. The occupations with which they were associated included : Shoe making, regular service, business, handicrafts, metal work, agriculture, carpentry, certain repairing works, etc.

Living Conditions

Of the total workers 1338 (74.46 per cent) were living in own house while 459 (25.54 per cent) were living in rented

houses. Of them, 56.08 per cent had pukka houses, 23.83 per cent kutcha and 20.09 per cent partly pukka houses. The conditions of both owned and the rented houses were more or less similar.

Amount two-thirds of the rented houses (66.45 per cent) had a single room and 27.02 per cent two-rooms accommodation. Thus, only about 7.0 per cent of the workers had more than two rooms in their occupation. Over half of them (52.29 per cent) were paying a small amount ranging between Rs.20.0 and Rs.60.0 as monthly rent for their houses followed by 30.94 per cent paying between Rs.61.0 and Rs.100.0 and 16.77 per cent over Rs.100.00.

The necessary facilities of water, electricity, toilet and bath room together were not available in every house. Only 63.83 per cent houses had electricity, 45.08 per cent had water, 61.32 per cent a separate toilet and 39.46 per cent a separate bathroom. The facilities existed in a larger percentage of pukka houses than in the partly pukka and kutcha houses. For example, 86.21 per cent of the pukka houses had electricity, 63.69 per cent had water, 83.63 per cent had a separate toilet and 57.24 per cent had an independent bathroom. In comparison, the percentage of partly pukka houses having the facilities of electricity, water, toilet and a bathroom was 49.31, 35.18, 41.00 and 25.76 respectively. Among the kutcha houses only 23.36 per cent had electricity, 9.58 had water, 25.93 had a separate toilet and 9.11 had an independent bathroom. Thus, the conditions of most of the partly pukka and kutcha houses, in terms of basic amenities were far from satisfactory.

CHAPTER IV

WORKING AND LIVING CONDITIONS OF WORKERS IN THE STONE INDUSTRY

As stated earlier, a sample of 180 workers was selected for a detailed study of their conditions in the industry. Among them 63 (35.0 per cent) were working in their own family units, 38 (21.11 per cent) in small household units and 79 (43.89 per cent) in the karkhana type establishments.

The family occupation of 42.78 per cent of workers had been stone-craft. Thus, a majority of workers (57.22 per cent) came from the families whose hereditary occupation was different. Twenty workers had initially joined some other job before joining the stone industry. They were, therefore, asked to specify reasons for their preference of this craft. Most of them specified more than one reason. A majority of them (72.81 per cent) thought it was easier to get a job in this craft while 58.25 per cent felt it was easier to learn this craft; 43.69 per cent of each thought the wage rates were better in this industry than in other jobs and that there were chances of becoming entrepreneurs; and, 20.39 per cent of the workers felt that the opportunities for self-employment were greater in this craft.

Training

Since the stone craft require a superior skill the period of its training is considerably longer - ranging from one year

to over five years depending upon the process they specialise. The average learning period of the sample workers comes to 31.67 months. Of the sample workers 22.78 per cent had their training for one year; 35.56 per cent received their training for two years, 24.44 per cent for three years and 17.22 per cent for four years or more. We also enquired about the age when they joined the industry as trainees. Most of them joined at an early age - 17.22 per cent at the age of upto 10 years; 39.44 per cent in between 11 and 14 years and 43.34 per cent at the age of about 15 years or more.

As regards their entry into the industry, 25.0 per cent of the workers had joined their own family's unit; 37.78 per cent joined the unit of their friends/relations and 37.22 per cent got the opportunity in other establishments. In the sample of 180 workers 176 were continuing in the same kind of work for which they acquired skills during their training and only four workers changed to other kinds of jobs/processes in the industry because the wages in these jobs were better and the job security was greater.

Background

A large majority of the sample of workers (95.33 per cent) belong to the Agra city. About 56 per cent of the workers in the sample were Hindus, about half of them (27.2 per cent) belonging to the Backward and the Scheduled Castes and the remaining were Muslims (44.5 per cent). Most of the workers were relatively young in age. About one-fifth of them (20.6 per cent) were in the age group of upto 20 years, 29.0 per cent

were in between 21 - 30 years and 36.1 per cent were in the age group of 31 - 40 years. Thus, only 8.9 per cent of the workers were in the age group of about 40 years.

Regarding the educational background of workers the sample had 38.4 per cent illiterate, 6.1 per cent literate without formal schooling, 15.0 per cent had education upto Junior basic, 16.1 per cent upto Senior basic and 18.3 per cent upto High School level. About 6 per cent of workers had received some technical training.

Despite comparatively young age a majority of the workers had spent a considerably long period in the stone industry, because most of them had joined it during their childhood. About 19 per cent of them had been in the industry for over 20 years, 35 per cent were for a period of 11 - 20 years and 46 per cent for a period of upto 10 years.

The average size of family of the workers was 6.34 and an average of 1.83 members per family were working in the stone industry. Of the 1142 members of households of the workers 330 were engaged in this craft. They included 296 adult males, 20 children of upto 15 years, 15 adult females and one female child.

Earnings

Considering the nature of work and the skill requirement in the industry the wages of a majority of workers can be termed as meagre as the average monthly earning of the workers were Rs.493.99. A majority of the workers (56.67 per cent)

were earning between Rs.401 -- Rs.600 while 23.33 per cent were earning upto Rs.400.0 and 20.0 per cent of workers were getting over Rs.600.0 per month. Besides, seven workers had other sources of income also. Four of them were also earning between Rs.250.0 to Rs.600.0 per month through different repairing jobs and three workers were earning between Rs.400.0 to Rs.600.0 per month through other jobs.

The monthly earnings of workers vary during different seasons. They earn the lowest average monthly wages, i.e., Rs.346.52, during rainy and highest average wages during winters i.e., Rs.579.57 per month. The distribution of workers in different income groups during different seasons is presented in Table 4.1.

Table 4.1 : Monthly Earnings of Workers During Different Seasons.

Earnings (Rs.)	Season-wise Distribution of Workers		
	Summer	Rainy	Winter
Upto 400	42 23.33	119 66.11	24 13.33
401 - 600	89 49.45	55 30.55	88 48.89
601 & above	49 27.22	6 3.33	68 37.78
Total	180	180	180

The Table 4.1 indicates that during rainy season the earnings of workers are affected very adversely as about two-thirds of them earn only the lowest income upto Rs.400.0 per

month. The winter season seems to be the best from earnings point as only about 13 per cent of them earn the lowest wages as compared to 23 per cent during summer months while about 38 per cent are able to earn over Rs.600.0 per month during winter as against 27 per cent of workers during summer.

We also analysed the data to find out the average annual earnings of workers engaged in different types of units as well as the season wise average monthly earnings of workers engaged in different types of establishments. The Table 4.2 presents this analysis.

Table 4.2 : Average Earnings of Workers During Different Seasons by Type of Establishment

Type of Unit	Average Monthly Earnings (Rs)			Average Annual Earnings
	Summer	Rainy	Winter	
Own Family's	542.29	352.17	604.17	5994.54
Small Household	472.45	251.03	529.79	5013.12
Karkhana	538.71	387.95	583.90	6415.92
Total (Average)	523.34	346.52	579.57	5927.88

The Table 4.2 substantiate the analysis presented in Table 4.1 that the earnings of workers are badly affected during rainy season. We find the average earnings of workers during summer and winter were higher by 51.03 per cent and 67.25 per cent respectively from the average earnings of the rainy season. The maximum seasonal effect on earnings was found on those working in small household units.

The average annual earnings of workers were Rs.5927.88 among them those engaged in karkhana type establishments were getting the highest followed by those working in their own family's units and in small household units. Those working in the own family's unit may be called self-employed as members of the household work together and pool their earnings. However, their individual earnings can be calculated on the basis of type and quantum of work done by them. Their average earnings were higher than those working in the small household units because they don't have to share their income with non-household labour.

The work is seriously affected during rainy season mainly because drying of the paste used joining pieces takes lot of time and there is a possibility of damage in the quality of work. It is mainly because of this reason that there is not much work in the units and, therefore, the average monthly wages of workers during rainy season were only 66.2 per cent of the average monthly wages of summer and 59.8 per cent of the average wages of winter seasons. A large proportion of workers do not get employment for the full month during rainy season as only 3.9 per cent of workers reported full month's employment during this season. About 24.0 per cent of the workers were able to get only a few day's employment during this season. In comparison, 24.4 per cent of workers were getting full month's employment during summer and 31.1 per cent during winter season.

The shortage of work during the rainy season was so acute that even during the days of employment full day's work was not available to 63.3 per cent of workers. Such a situation was faced by only 13.5 per cent of workers during summers and by 9.5 per cent of workers during winters. For workers drawing wages at piece rate such a situation was very serious.

The analysis of monthly household earnings in relation to the size of family shows about half of the families (50.56 per cent) had a monthly income of over Rs.800.0, 19.45 per cent had between Rs.601.0 - 800, 26.66 per cent had between Rs.401 - Rs.600 and 3.33 per cent had only upto Rs.400.0. The average monthly earnings per household were Rs.976.81.

The income was positively associated with the size of the family. Of the families with upto three members 15.79 per cent had monthly income of upto Rs.400.0, 68.42 per cent had between Rs.401 - Rs.600, 10.52 per cent had between Rs.601 - Rs.800.0 and 5.26 per cent had over Rs.800.0. Among the families with 4 - 6 members 40.22 per cent had monthly earnings of over Rs.800.0, 26.83 per cent had between Rs.601 - Rs.800, 31.71 per cent had between Rs.401 - Rs.600.0 and only 1.22 per cent upto Rs.400.0. In the families of 7 - 9 members 62.06 per cent were earning above Rs.800.0, 18.95 per cent were earning between Rs.601 - Rs.800.0, 15.51 per cent between Rs.401 - Rs.600.0 and 3.45 per cent upto Rs.400.0. All the families having ten or more members had a monthly earnings of over Rs.800.0.

Among the sample of 180 workers 19 (10.55 per cent) had a very small family of upto 3 members, 82 (45.56 per cent) had 4 - 6 members, 58 (32.22 per cent) had 7 - 9 and 21 (16.67 per cent) had 10 or more members. The per capita monthly earnings were Rs.153.96.

As stated earlier, twenty workers had joined the stone industry after working for some time in jobs outside this industry. Their average monthly wages in the earlier job were Rs.271.35 and most of them didn't think any significant improvement in their earnings was possible had they stayed there. In comparison the average monthly earnings of workers in their present job were Rs.493.99. A comparison of wages of the workers who shifted to the stone craft is presented in Table 4.3. It indicate a significant improvement in earnings after they joined the stone industry.

Table 4.3 : Monthly Wages of Workers in their Earlier Job and in the Present Job

Wages in Earlier job	Wages in present job (Rs.)					Total
	Upto 300	301- 400	401- 500	501- 600	601 or more	
Upto Rs.100	3	-	-	-	-	3
101 - 200	1	2	2	1	-	6
201 - 300	-	-	3	2	-	5
301 or more	-	-	-	3	3	6
Total	4	2	5	6	3	20

Working Conditions

The sample of 180 workers was engaged in making different stone items fully or partly. The work-wise distribution of their earnings is given in Table 4.4.

Table 4.4 : Kind of Work Done and Monthly Earnings

Kind of Work	Monthly Earnings (Rs.)			
	Upto 400	401- 600	600 & above	Total
1. Complete process of Taj Models	4 13.33	22 73.34	4 13.33	30 15.67
2. Fixing of parts of Taj Models	7 58.33	5 41.67	-	12 6.67
3. Colouring and Finishing of Taj Model	2 28.57	4 57.14	1 14.29	7 3.89
4. Inlay work on different items	13 30.95	18 42.86	11 26.19	42 23.33
5. Complete process of Photo-frames, boxes, lamps, etc.	8 25.81	17 54.84	6 19.35	31 12.22
6. Statues	7 25.00	18 54.29	3 10.71	28 15.55
7. Stone Cutting	1 3.33	18 60.00	11 36.67	30 16.67
Total	42 23.33	102 56.67	36 20.00	180 100.00

We find a majority of workers were earning between Rs.400 - Rs.600 and a 20 per cent of the sample was earning over Rs.600 per month. Earningwise, those engaged in stone cutting were better-off, followed by those engaged in the entire process of making the Taj Models, Statues, Photo Frames, Lamps, Boxes, finishing and inlay work, etc.

The earnings of a majority of workers fixing various parts of Taj Model (58.33 per cent) were lowest probably because the process does not involve skills of a very high order. However, about 31 per cent of workers engaged in inlay work were also earning a meagre income of upto Rs.400 per month while this process involves a very high level of skill. It seems the requirement of skills of a very high order in inlay work is itself a handicap in earning higher wages as the process is very slow and the payment is fixed at piece rate. A significant proportion of workers were, therefore, not able to work very fast and earn higher amount.

The workers complained that in the absence of fixed minimum wages and other welfare measures for workers in the industry their earnings remained very low. Since the payment is made at piece rate the workers do not get any wages for the day they are not given work. The workers in such circumstances remain unemployed. In Table 4.5 we present the reasons for remaining unemployed during certain portions of the months in different seasons.

Table 4.5 : Reasons for Remaining Unemployed During Different Seasons

Reasons of Unemployment	Seasons		
	Summer	Rainy	Winter
No work	15 16.13	130 77.84	7 10.29
Sickness	15 16.13	19 11.38	8 11.77
Fatigue	63 67.74	17 10.18	53 77.94
Others	-	1 0.60	-
Total	93	167	68

Two significant points emerge for Table 4.5 : (a) over three-fourths of the workers remain unemployed for certain period during the rainy season because of non-availability of work; and, (b) during the peak seasons of summers and winters, a large majority of those who remain unemployed for certain period, actually take off from work due to fatigue as during these seasons most of them work hard to earn higher wages.

The opinion with regard to improvement in wages during the last five years was divided as only 55.56 per cent of workers felt their earnings had increased during the period. From those who thought their wages had increased we enquired about their wages at three points of time during the last five years.

The average monthly earnings 5 years before were Rs.327.59, 3 years before Rs.401.90 and at the time of the present survey, Rs.493.99. We find the earnings of workers 3 years before had increased by 22.68 per cent over the monthly earnings of 5 years before. The monthly earnings at present were higher by 22.91 per cent over the earnings of 3 years before. Comparing with the monthly earnings of 5 years before the wages of workers were higher by 50.80 per cent at present.

The industry had peak and lean seasons during a year. The winter season was identified as peak season while rainy season was identified as the lean season. We enquired about the daily wages of workers during the two seasons. The average daily wages of workers during the peak season were Rs.22.29 as against Rs.14.53 during the lean season. Thus, the average

daily wages during the peak season were higher by 53.41 per cent from the daily wages of the lean season.

A detailed comparison of daily wages of workers during the peak and lean seasons may be interesting. During the peak season (winters) only 1.11 per cent of workers were earning wages of upto Rs.10 per day and 15.00 per cent were earning between Rs.11 and Rs.15 as against 27.22 per cent and 40.56 per cent of workers earning similar wages during the lean season (rainy) respectively. Those earning a daily wages in between Rs.21 and Rs.25 during the peak season constituted of 27.22 per cent of workers while only 7.78 per cent of the workers were earning similar wages during the lean season. About one-fourth (25.56 per cent) of the workers were earning over Rs.26 per day during winters while only 3.33 per cent were able to earn that much during rainy season.

The wages are more or less uniform in all the establishments. A significantly large proportion (70.0 per cent) of workers complained that they were not getting their wages paid in time. The period for payment of wages vary from unit to unit. In some units it also differs on the basis of the nature of work. However, 20.56 per cent of the workers reported that the period of payment of their wages was not fixed while 12.78 per cent were getting their wages as soon as they completed their job; 40.0 per cent were getting their wages once a month and 5.0 per cent were getting their wages at the end of the day. The rest of the workers, i.e., 21.67 per cent, were getting them either weekly or fortnightly. None of them reported any deduction from their wages. They were also not getting any kind of fringe benefit.

Only 10 per cent of the workers were working for a fixed number of hours per day while 90.0 per cent of the workers had no fixed working hours. However, there is not much difference in the average number of hours the two types of workers were working per day. In case of those who maintained that they were working for a fixed number of hours per day the average comes to 8.5 hours whereas those who had no fixed working hours were working for an average of 8.9 hours per day.

Job Security and Intention to Continue in the Craft

Nearly one-fourths of the workers (23.33 per cent) felt their job was insecure. They felt so as they thought the conditions in the industry itself were uncertain because of heavy dependance of establishments on job work. About half of those who felt insecurity of job - (51.16 per cent) were working in the karkhana type establishments; 30.24 per cent were in their own family's units and 18.60 per cent were in the small household units.

The feeling of insecurity of job was found among a larger proportion of workers engaged in fixing the pieces of Taj Models. (33.3 per cent), Inlay work (30.95 per cent) and colouring and finishing of different stone items (28.57 per cent). These are comparatively highly skilled jobs which have bearing on the quality of the product. It is surprising that on the one hand the entrepreneurs complained of shortage of skilled workers and on the other hand a sizeable group of workers expressed the feeling of insecurity of job. This situation might be because

of the heavy dependence on job work and the uncertainty with regard to the quantum of job work that the entrepreneurs are able to get during a period.

About one-third of the workers (32.22 per cent) felt it difficult to get a similar job with other employers easily. Among them 25.86 per cent were those engaged in cutting of the stones, 18.97 per cent in inlay work, 13.79 per cent each in making statues and lamps, boxes, photo frames, etc. Such a situation is in consonance with the insecurity of job. The employment opportunities vary from season to season as well as from period to period as most of the entrepreneurs do not have enough work during the rainy season while some do not get sufficient job work even during other seasons. So, the requirements for non-household workers depend on the quantum of work an entrepreneur is able to secure.

A majority of the workers (65.56 per cent) were not at all satisfied with their present job. Most of them (67.80 per cent) were dissatisfied because of the low wages in comparison with the labour and skills involved in their job. Untimely payment of wages was a source of dissatisfaction for 12.71 per cent of workers while 9.32 per cent of the craftsmen were dissatisfied because of 'unsatisfactory working conditions' in the industry. However, seven workers (3.89 per cent) reported that their employers were sympathetic to the needs of workers and they were advancing loans/advances at the time of their needs. These workers had received advances ranging from Rs.500 to Rs.3,000.

Despite the feelings of insecurity of job and low wages a large majority of the workers in the sample (97.22 per cent) had intentions to continue in this craft. Out of the only five workers who wanted to shift to some other job, three were trying to get some suitable job outside the stone industry.

A sizeable section of workers expressed pessimism with regard to the opportunities for advancement in their present job. Atleast 44.44 per cent of workers opined that there was no possibility of any significant improvement in their conditions. The significant reasons mentioned for such a feeling included : the conditions of the establishments with which they were associated do not allow payment of higher wages (33.75 per cent); in the absence of government support the industry can hardly offer better job conditions (31.25 per cent); and, the supply of even inferior quality raw materials at exorbitant rates does not allow a good margin of profit, and, therefore, their employers can not afford payment of a significantly higher wages to them.

On the other hand, of the 55.56 per cent of workers who thought they have opportunities for advancement in their present job, 51.0 per cent were hopeful that they will be able to become entrepreneurs at some point of time. Over one-third of the workers (36.0 per cent) expressed their hope that the government support and assistance will be available to the industry which will help in its expansion and the workers will certainly get a share in the improvement.

Household Expenditure

We find the average monthly expenditure of the workers families was Rs.884.82 and the per capita monthly expenditure on items including food, fuel/light, education, clothes, durable goods and other miscellaneous items such as transport, ceremonies and personal services, etc. was Rs.128.58. In Table 4.6 we present the item-wise average monthly household expenditure.

Table 4.6 : Itemwise Average Monthly Expenditure of Workers' Household

Item	Average Expenditure(Rs.)	Percentage
Food	488.81	55.24
Fuel/Light	69.81	7.89
Education	70.70	7.99
Clothes	115.44	13.05
Durable Goods	60.06	6.79
Others (Transport, Ceremonies, Personal Services, etc.)	80.00	9.04
Total	884.82	100.00

Two significant points emerge from the analysis in Table 4.6, i.e., (a) the average monthly expenditure on items other than food was significantly higher, particularly, on clothes, and durable goods; and, (b) the normal household expenditure was within limit of the average monthly household earnings.

The average monthly household earnings were Rs.976.81 and the per capita monthly earnings were Rs.153.96. We, therefore, find the average monthly household expenditure was 90.58

per cent of the average household earnings while the per capita monthly expenditure was 83.52 per cent of the per capita monthly income. The situation seems manageable. However, expenditure on smoking, alcohol, tobacco, bhang and entertainment (films) was also reported by a significant number of workers. An expenditure ranging from upto Rs.15 to over Rs.26 per month on smoking was reported by 108 workers, on alcohol by 11 workers, on tobacco by 59 workers, on bhang by 3 workers and on films by 113 workers. Besides, 55 workers reported an average annual expenditure of Rs.148.36 on medical treatment of self whereas 136 workers reported an average annual expenditure of Rs.510.36 on medical treatment of their family members.

At least 21 workers believed their ailments were related to their nature of work. Among them 10 were suffering from Asthama, 6 from Tuberculosis and 5 from weak eye-sight.

Indebtedness

We also explored about the extent of indebtedness among the stone workers and found 28.89 per cent of them were indebted. Of those indebted, 61.54 per cent were to repay the principal loan amount of over Rs.1500, 7.69 per cent had to repay between Rs.1001 - Rs.1500, 17.31 per cent between Rs.801 - Rs.1000 and 13.46 per cent had to repay in between Rs.401 - Rs.800.

The sources through which loans were secured were many : 28.85 per cent of workers had taken the loan from their

employers, 23.08 per cent from the Money lenders, 21.15 per cent from relatives, 15.38 per cent from banks and 11.54 per cent from friends.

The rate of interest on loans charged by money lenders and relatives were exorbitant but they were the major sources, next to their employer. The employers extend loans to their old workers in the form of an advance and do not charge any interest.

The rate of interest charged by the money lenders range between 24 per cent to 48 per cent per annum while relations charged at the rate of 36 per cent and friends at the rate of 12 per cent per year. The interest rates of the bank were in between 10 per cent and 14 per cent per annum.

The period for which 44.23 per cent of workers were indebted may be termed as long as they were indebted for over three years. About one-third of the indebted workers (34.62 per cent) had taken loan in between one and three years period and had not repaid. Thus, only about one-fifths (21.15 per cent) of the workers were indebted for a period of upto one year.

Over half of the indebted workers (51.92 per cent) had obtained loan for consumption purposes while one-fourths had secured it for purchasing raw materials for making small stone items during off-hours. Thus, nearly one-fourths (23.08 per cent) of the workers had taken loans for meeting some contingency, such as medical treatment of self or family members or for fulfilling social obligations such as marriage among near relations.

Trade Unionism

Trade Unionism among workers has not developed, may be because of the nature of set-up of the industry, i.e., a large number of workers were engaged as household labour while the non-household workers were working at piece rate wages and most of the establishments depend on job work. There are some cooperative societies, of the household workers.

In our sample, only two workers reported that they were members of a union known as 'Marble Karigar Sangh'. The workers, it seems, were not even interested in joining or forming a union. Most of them (93.33 per cent) were not even aware of the existence of a union for stone workers.

Living Conditions of Workers

Since a vast majority of the stone workers belong to Agra, two-thirds in the sample were living in their own houses. Most of them (87.5 per cent) were living in ancestral houses. The remaining, i.e., 12.5 per cent, had acquired their houses themselves.

The workers estimated the present value of their houses ranging from upto Rs.10,000 to above Rs.60,000. In order to understand the conditions of living of workers we enquired about the conditions of housing in detail. The value of the owned houses may be termed as low in the case of 35.0 per cent of the houses as their worth was estimated upto Rs.15000 while 31.67 per cent of the houses were estimated by their

owners for in between Rs.15000 - Rs.25000; 14.16 per cent estimated for in between Rs.25001 - Rs.35000, and, 19.17 per cent thought their houses had a value of over Rs.35000.

Of the one-third of the sample living in rented houses one-fourths (25.0 per cent) were paying a monthly rent of upto Rs.40, 31.67 per cent were paying in between Rs.41 - Rs.80; 31.66 per cent were paying in between Rs.81 - Rs.120 and 11.67 per cent were paying over Rs.120. The estimated value/rent of a majority of the houses occupied by workers' families was comparatively low, considering the prevailing market rates. This itself reflect the conditions of their housing. This is further indicated from the data on type of construction as 39.44 per cent of the houses were either kutcha or partly pucca and three families (1.67 per cent) were residing under tin shed. Thus, a majority of the workers (58.89 per cent) were living in pucca houses, but a large proportion of them were old, mostly, in dilapidated condition.

Over two-thirds of the workers' families were residing in just one (40.0 per cent) or two (27.78 per cent) rooms within a covered area of upto 100 (22.78 per cent) or 200 (42.78 per cent) sq. ft.. Nearly one-third of the houses (32.78 per cent) were without electricity and 43.33 per cent did not have running water. Only 37.22 per cent of the houses had the facilities of toilet and bathroom both; 24.44 per cent had only toilet and 12.22 per cent had only bathroom. Over one-fourths of the houses (26.11 per cent), therefore, had neither of these facilities in their premises. They were sharing them with a number of families, ranging from two to more than ten.

Benefits from Certain Schemes

In order to know whether this segment of the artisans has benefitted from some of the general schemes/facilities provided by the government we asked a question 'did you benefit from any of the schemes/facilities provided by the government such as : Primary education, adult education, applied nutrition, family welfare planning, health services and housing'? We find only one-fifths of the workers in our sample had benefitted from one or the other facilities. The proportion of the beneficiaries of each of the facilities was very small considering the type of facilities/schemes included in the list.

Out of the 36 workers who benefitted from these facilities only 18 had availed the facility of free primary education; 11 benefitted from the family welfare planning; 6 from the health services and one from the applied nutrition programme.

Suggestions from Workers

Finally, we sought the opinion of workers about : (a) the potentials of the stone industry in generating employment for more workers; and, (b) the possibility of the workers earning higher wages. And, at the end suggestions with regard to improvement : (i) in the conditions of the industry; and, (ii) in the service conditions of workers required urgently were invited.

About three-fourths (74.44 per cent) of workers thought the stone industry has potential to generate employment for more workers. Nearly all of them (98.51 per cent) also thought the scope of jobs was limited to the highly skilled workers.

The workers were also asked to suggest steps for generating more employment. A majority of them (69.29 per cent) suggested the government assistance in the supply of raw materials at reasonable rates and support to the units in marketing their products will generate more employment. About one-fifths (19.28 per cent) suggested the establishment of training centres will help in changing to improved technology and better quality of workmanship. It will help in generating more employment. The fixation of reasonable minimum wages will help in solving the problem of shortage of highly skilled labour, which is at present a serious problem in the expansion of the industry. This measure was suggested by 11.43 per cent of the respondents.

Those who thought the industry has no potential to generate employment for more workers (25.66 per cent) were asked to specify the reasons for their thinking. A larger proportion of them (39.58 per cent) thought low wages and poor working conditions were deterrent to expansion of the industry. 29.17 per cent of workers were unhappy over the system of marketing and involvement of middlemen resulting in high retail prices which they thought were coming in the way of the expansion; 22.92 per cent of the respondents thought it was

not possible because of the uncertainty of quantum of work due to dependence on job work and 8.33 per cent felt the difficulties in the availability of raw materials were coming in the way of expansion of the industry.

When asked 'whether the workers can earn higher wages' a large majority of the workers (97.22 per cent) replied in affirmative. They also extended various reasons for their thinking, e.g., 23.89 per cent of them thought easy availability of raw materials at reasonable rates will enhance the workers' share in the cost of production; 23.33 per cent thought availability of more job work will benefit workers; 20.0 per cent believed the government support to the industry will help in its expansion and the workers will benefit from this change; 18.89 per cent of workers felt it possible provided there is continuity in job work; and, 17.78 per cent of workers thought the reasonable retail prices of their products will help in expanding the market and if it is done the workers will benefit by getting full-time regular work.

Finally, two questions seeking suggestions of respondents with regards to improvement in the conditions of the stone industry and in their service conditions were asked. In Table 4.7 we present their suggestions with regard to improvement in the conditions of the industry.

In Table 4.7 we find the thrust of the suggestions was on help from the government, e.g., they want the government should ensure supply of raw materials at reasonable rates by

Table 4.7 : Workers' Suggestions with regard to Improvement in the Conditions of the Stone Industry

(Multiple Responses)		
Suggestions	No.	Percentage
1. Government help in marketing and exports	84	46.67
2. Financial Assistance from Government	80	44.44
3. Easy availability of raw materials at reasonable rate	71	39.44
4. For reduction in sale price the involvement of middlemen must end	29	16.11
5. Establishment of training centres	9	5.00
6. Exemption from Sales Tax	5	2.78
7. Regular Power Supply	2	1.12

breaking the monopoly of a few dealers; the financial assistance for working capital; the help in marketing their products within the country and outside was also considered necessary because the production units were depending on job work from the dealers; and, the establishment of training centres by the government may help in developing new techniques in stone craft.

As regards the improvement in the service conditions of workers that the respondents thought were required urgently we present their suggestions in Table 4.8.

Table 4.8 : Suggestions with Regard to Improvements in the Service Conditions of Workers Required Urgently

(Multiple Responses)		
Suggestions	No.	Percentage
1. Fixation of Reasonable minimum wages	93	51.56
2. Housing Facility	52	28.89
3. Provision of Medical Care	34	18.89
4. Free Education for Children	33	18.33
5. Social Security Measures : Insurance, Old Age pension, Bonus	21	11.67
6. Necessity of a Strong Union of Workers	8	4.44

Some of the suggestions extended by the respondents seems significant. The fixation of reasonable minimum wages mentioned by over half of the workers, however, depend more on the bargaining capacity of workers and their employers as in the absence of the system of time rate wages it is difficult for the government to fix minimum wages. However, the suggestion has a very genuine basis because the workers are very low paid considering the nature of their work. Housing facility for workers has been suggested by 28.89 per cent of respondents and looking at their housing conditions their concern for this cannot be ignored outright. The suggestion regarding provision of medical care for workers may be considered in the light of their nature of work. A significant proportion of workers believe that their job involves health hazards, particularly for those engaged in stone cutting and inlay work. Asthma, Tuberculosis and loss of eye sight were believed to be associated with their jobs. The suggestion about free education to their children by 18.33 per cent of workers, seems, was related to higher education. However, school going was not found popular among the children of the workers such as insurance and old age pension suggested by 11.67 per cent of respondents needs serious consideration as those who loose eye sight or suffer from asthma or tuberculosis due to the nature of their job deserve some measure of economic security in case they become incapable of earnings due to such serious ailments.

CHAPTER V

SUMMARY AND CONCLUSIONS

The stone craft is a very old activity in Agra which flourished during the Mughal period because of the patronage of Kings. During the early period only red stone was used for making different items. The variety of stones has expanded with the availability of new ones. Some are brought from different states while the costlier stones such as, alawastar, black stone and kora stone are imported from Italy, Belgium and Germany respectively. Some of the real stones used in the inlay work known as pachchikari for decoration of the costly items are also imported from Italy, Belgium and the USSR. Thus, the industry has tried to expand by enlarging the variety of items and attracting the local as well as foreign markets.

At the time of survey for the present study (1986) there were 89 units registered with the Industries Department while 361 units were unregistered. A total of 1891 workers were found associated with different kinds of establishments. The exact numbers of units and stone workers during different periods were not available anywhere. A number of sources estimated different figures for different periods. From the various estimates, it seems the number of units had not declined but the number of workers had declined considerably over the past couple of years.

Most of the establishments were proprietary using mostly family labour and undertaking job work from the dealers and commission agents. Thus, they were, in a way, earning wages. The direct sale to retailers or consumers was very limited. Only a few larger establishments had their show-rooms in Agra and the small household units were selling part of their products to tourists visiting Agra.

Broadly, there were two types of establishments - Household and karkhana type units. Among the Household units were also establishments of two types, i.e., own family's unit which involves only one or two members of the family and the small household unit which are run by a relatively larger number of family members and other near relations. Such units follow only traditional technology by using hand operated tools. The karkhana type units are run mostly through non-household labour. They have adopted modern technology by using power operated machines for stone cutting, drilling, grinding and polishing. The entrepreneurs need about Rs.50,000 to start a karkhana type unit and about Rs.5,000 to start a household unit, which include fixed and working capital.

The workers specialize in one or the other processes of the craft and, therefore, an item passes through a number of hands before it is completed. The inlay work done with the help of only hand tools is a very slow process, but it requires skills of a very high order.

The present study is primarily based on a survey of 45 establishments and 180 workers. However, for estimating the correct position with regard to the workers' strength the census of workers was also done through the help of a small interview schedule.

The industry uses basically three kinds of raw materials, i.e., a variety of stones used in making different items, the inlay stones for decorating them and adhesives. The various kinds of raw materials are procured by their local dealers either from importers/dealers of important centres in the country or from the mines. The entrepreneurs owning household units were very critical of the local dealers of various kinds of stones as they were harassing them because of their monopoly over the basic raw materials.

The majority of the units were getting job work from dealers/wholesellers/exporters or commission agents. Some of them were also processing their own raw materials and selling their products to the local retailers or direct to the customers (users) on a small scale. The industry has a fairly good demand of its products in the foreign market. However, the entire export estimated at around three-fifths of the total production is handled by dealers/commission agents and exporters of Bombay, Delhi and Calcutta. The role of the commission agents in the industry is very important. Their involvement is significant in job work and marketing both.

The system of recruitment of workers is direct. The trainees are recruited at a very young age of even around ten years. The payment of wages is generally made at piece rate. Since the units have to depend on job work the workers have a feeling of insecurity of job. Most of the workers earn monthly wages in between Rs.300 and Rs.600. Their earnings decline considerably during the lean period of rainy season.

The average total productive capital per establishment was Rs.32,924.45 in the form of fixed capital (Rs.15,257.78) and working capital (Rs.17,666.67). We find a positive relationship between the size of the unit, as indicated by the number of workers engaged by them, and annual earnings. A very significant point that emerged in relation to net earnings per unit of output was that the dealers share in profit was much higher than the share of the stone establishments.

The entrepreneurs were facing certain serious difficulties in expanding their establishments. They were facing shortage of skilled workers. The old workers were leaving the industry because of low wages; the health hazards in certain processes together with low wages and lack of social security measures were preventing new workers from joining the industry; support from the government for direct export was almost non-existent. The raw materials were not available at reasonable rates. The payment of heavy commission to agents and middlemen by dealers was preventing reasonable increase in payment for the job work they undertake.

The data pertaining to the last ten years indicate : (a) decline in the number of workers in the sample units, (b) the average number of non-household workers per units had reduced while the average number of household workers per units had increased; and, (c) the proportion of net profit had declined by over 6 per cent during the period. The smallest units with upto 5 workers constituting 71.1 per cent of total establishments were losing net income in the successive periods in the last ten years. When asked about their perception of the future prospects of the stone industry only 22.2 per cent of the entrepreneurs thought it 'bright'. Only one-third of the respondents were satisfied with the progress in their business while two-thirds expressed their dissatisfaction. Most of the entrepreneurs wanted to expand their units but were unable because of shortage of working capital and non-availability of good quality stones at reasonable rates.

The entrepreneurs emphasized the need for the supply of raw materials through some public agency on more than one occasion. They also needed working capital and support in marketing their products.

In our sample of 180 workers about 95 per cent belong to Agra city. Nearly half of the workers (49.45 per cent) were young, in the age group of upto 30 years. Over one-third (38.33 per cent) were illiterate. The average size of the family of workers was 6.34. About one-third of the members of workers' households were earning, mostly through the stone

industry. The association of a majority of workers with the industry was for a considerably long period ranging from 11 years to over 20 years.

Considering the nature of work and skill requirement in the industry the average monthly wages of workers (Rs.493.99) were meagre. The monthly earnings varied during different seasons - lowest in the rainy and highest in the winters. During rainy season full days work was not available to 63.3 per cent of workers even on the days of employment. The average annual earnings of workers in the karkhana type units were highest (Rs.6415.92) followed by those in own family's units (Rs.5994.54) and small household units (Rs.5013.12). The average monthly earnings per household were Rs.976.81 and the per capita monthly earnings were Rs.153.96.

The workers complained that in the absence of fixed minimum wages their earnings have remained very low. Only 55.56 per cent of workers reported an increase in their wages to the extent of 50.8 per cent during the last five years. A significantly large proportion of workers (70.0 per cent) complained that they were not getting their wages paid in time.

Nearly one-fourths of the workers felt their job was insecure because of dependence of the units on job work. A majority of workers (65.56 per cent) were not at all satisfied with their present job, mainly because of low wages and untimely payment of their dues. A sizeable section of workers was pessimistic about advancement opportunities in their job.

Despite the feeling of dissatisfaction most of the workers (97.22 per cent) had intention to continue in this craft. Over one-fourths of the respondents were hopeful that they will be able to become entrepreneurs.

The average monthly household expenditure of workers was Rs.884.82 and the per capita monthly expenditure on food, fuel/light, education, clothes, durable goods and other miscellaneous items was Rs.128.58. It, therefore, seems the average monthly household expenditure was manageable. However, expenditure on smoking, alcohol, tobacco and entertainment, etc. was also significant. Besides, annual expenses on medical treatment of self and their family members was considerable for a sizeable section of the sample.

About 29 per cent of the workers were indebted. Out of them 44.23 per cent were indebted for a period of over three years and 34.62 per cent for a period between one and three years. The employers had given loan in the form of an advance to 28.85 per cent of the indebted workers without interest; 23.08 per cent had secured loans from money lenders on interest rates between 24 per cent and 48 per cent while 21.15 per cent of the indebted workers had obtained loans from their relations on the interest at the rate of 36 per cent. Over half of the indebted workers had taken loan for consumption purpose while 23.08 per cent had taken it for meeting some contingency.

Since a vast majority of workers belong to Agra, two-thirds in the sample were living in their own houses, most of them in their ancestral houses. However, nearly 40 per cent of the houses were either kutcha or partly pucca. Most of the pucca houses were old and most of them in dilapidated condition.

Over two-thirds of the workers' families were residing in just one or two rooms with a covered area of upto 200 sq. ft. Nearly one third of the houses were without electricity; 43.33 per cent did not have running water; and 38.34 per cent of the houses did not have a toilet in their premises.

The majority of workers (74.44 per cent), despite unsatisfactory working conditions, feel the industry has potential for generating employment for more workers. However, 69.29 per cent of them believed the assistance from the government in the supply of raw materials at reasonable rates and support in marketing was necessary to enable the units to generate more employment opportunities.

A large majority in the sample (97.22 per cent) believed the workers can earn higher wages provided the raw materials are made available to units at reasonable rates, the government supports the units in marketing of their products and the working capital is easily available. Like the entrepreneurs, the workers were also very critical of the attitude of dealers of raw materials who enjoyed monopoly.